

SEPTEMBER, 1912

ELECTRICAL MERCHANDISE AND SELLING ELECTRICITY

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New York Office, 17 Madison Avenue



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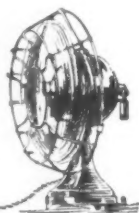
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Roast Beef, browned outside and rare inside, and other meats perfectly cooked.

A Fireless Cooker that works on 27 KW minimum per month per residence.—A Lamp Socket Load.

The lining is Aluminum.

The Element 600 Watts guaranteed for 2 years.

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Your
Dollar Ideas!



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ELECTRICAL-MERCHANDISE. and SELLING ELECTRICITY

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The Merchants at
UTICA, N. Y., Read
Our Advertising,
Asked for Information
and Have Just
Closed Contract
with Us for a Similar
Installation.

(This ad appeared in "Selling Electricity," February, 1912. It still holds true.)

This is the New Haven Pole

MADE OF THE BEST QUALITY GREY IRON CASTING

Showing the

Ornamental Luminous Arc

THIS is the installation that is drawing street-lighting committees from all over the country some nights from two and three different cities.

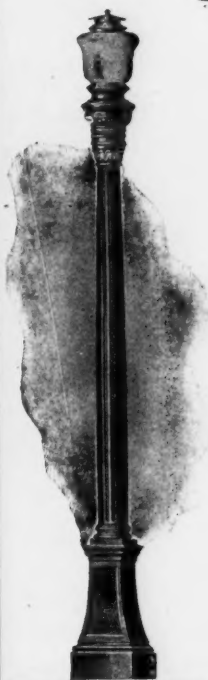
Why not get the merchants in your city interested in ornamental street-lighting either as a merchant's association or a straight better-street-lighting campaign. We can send you data which will enable you to put a proposition to those interested in your city. Write for it.

Ornamental Lighting Pole Co.

Poles for all Types of Lighting

19 Battery Place

New York



Are You One of the 2,489

Central Stations and Electrical Contractors who are selling

Thor Electric Home Laundry Machines?

If not, you are limiting your business instead of developing it. THOR dealers secure the orders not only because they offer their customers the best washing and wringing machines made, but because they can give them a selection from 29 sizes and styles at prices from \$35 up.

Our Liberal Terms

of payment and Free Trial conditions will enable you to develop a permanent and profitable business in these machines during the summer months.

Write for Free Catalog H Today

HURLEY MACHINE COMPANY

25 South Clinton Street, Chicago

NEW YORK
1012 Flatiron Bldg.LOS ANGELES
3rd and Main Streets



Here's Another Kind of Sign the Greenwood Company Builds

We have just built this big sky sign for the American Tobacco Company, and erected it on their factory at Louisville, Kentucky. It is 63 feet wide and 57 feet high and burns 2,150 Mazda sign lamps. The outline of the faces, the eyes and the lapels of the coats are in red. "TUXEDO TOBACCO" shines in white. "FOR PIPE AND CIGARETTE" is green. The smoke is opal. The sign is very realistic and there is lots of action.

"The Greenwoods" make all kinds of signs. We are doing the work of some of the largest national advertisers in the country and we send our erecting crews to all parts of the United States. They are on the road all the time. We control roof space in most of the larger cities of the South and many in the Middle West.

But our greatest strength lies in the small signs we build—the kind you want for your customers—and the secret of this success lies in their

Individuality

No matter where you are located, we can build signs for your people—the kind that will appeal to them—and make your sign load a bigger money-maker.

Now is the season to sell signs—Now is the time for us to begin working together.

Greenwood Advertising Company
Knoxville, Tenn.

ELECTRICAL MERCHANDISE AND SELLING ELECTRICITY

Edited by FRANK B. RAE, Jr.

EARL E. WHITEHORNE, Managing Editor

Electrical Co-operation Assured

Leaders of the Industry Get Together to Revise Crouse's Plan of Co-operative Electrical Development



A meeting held on Association Island, September 3d, steps were taken which insure the practical organization of the co-operative electrical development movement. The idea conceived almost a decade ago by J. Robert Crouse is about to become a reality. Backed by the strongest men in the industry; endorsed by the National Electric Light Association, the National Electrical Supply Jobbers Association, the National Electrical Contractors Association, and the Sons of Jove; assured of ample funds by these and the manufacturing interests—co-operative development is no longer a distant theory but an imminent fact.

The Association Island meeting marked the end of a ten-year struggle to prove the practicality of an ideal. It was at the Denver convention of the National Electric Light Association that J. Robert Crouse first gave definite form to his co-operation scheme. The plan at first was received with more or less good-natured skepticism, but with the backing of his associates in the incandescent lamp business, Crouse was able to demonstrate that at least some of his ideas could be put into practice with profit, and before long he had won over to his plan a sufficient number of the big men of the industry to make it seem reasonable to expect success. Then came the panic of 1907—with its losses, retrenchments, reorganizations. In a week the work of several years was swept away, and co-operation was as remote as when the scheme was broached at Denver. On top of this disappointment came Mr. Crouse's serious illness and the temporary abandonment of the entire plan.

But the ideal was too vital to be downed, even by panic and ill health. After a year or so he went to work again, to rebuild the wreck on a firmer foundation. One interest after another was enlisted. Co-operation was adopted by the Sons of Jove as a definite aim for this organization; the Commercial Section of the National Electric Light Association gave a practical demonstration of co-operative effort in issuing a number of publications for developing business; the People's Electrical Page was evolved to show how local electrical interests could work together for mutual good; the "har-

mony lunch club" idea was fostered. Patiently, carefully, thoughtfully, the plan has been carried forward from one small success to another. The meeting of September 3d marked the dividing line between preparation and actual organization.

At this meeting an Organization Committee, under the chairmanship of Henry

The jobbing interests are represented by:

W. E. Robertson, Robertson-Cataract Company, Buffalo.
Roger Scudder, Wesco Supply Company, St. Louis.
Gerald Swope, Western Electric Company, New York.
W. W. Lowe, Electric Appliance Company, Chicago.
Frank S. Price, Pettingill-Andrews Company, Boston.

The National Electrical Contractors send:

Ernest Freeman, Chicago.
P. N. Thorpe, Newark, N. J.
Ernest McCleary, Detroit.
J. R. Strong, New York.

The manufacturing interests will be served by:

Anson W. Burchard, General Electric Company, New York.
L. A. Osborne, Westinghouse Companies, Pittsburg.
B. M. Downes, The Manufacturers' Club, Covington, Kentucky.
J. Robert Crouse, National Quality Division of General Electric Company, Cleveland.
W. A. Layman, Wagner Company, St. Louis.
Philip S. Dodd, Secretary.

When the Island meeting was called it was not definitely known whether the time was ripe for actual organization, and the program was designed rather to draw out expressions from various interests than to formulate definite future plans. Thus each of the four big associations in the field was represented by a speaker who was there to state the attitude of his association's membership; representatives of the manufacturers were there to state their ideas about co-operative advertising; the publishers' representative was asked to give their views of the co-operative People's Electrical Page. In each case the spirit of co-operation was so enthusiastically expressed that when the time came for Mr. Dodd to make his suggestion for an organization, he had nothing else to do than suggest a Committee on Organization.

The co-operative electrical development movement is not only a personal triumph for J. Robert Crouse, but it will stand as a monument to the organization with which he is prominently connected. The National Quality Division of General Electric Company has backed the idea and has provided the men and means for carrying it to the present point of organization on a nationwide basis. In the preliminary effort to prove the practicality of co-operation, Philip S. Dodd has done brilliant work. As secretary of the Commercial Section last year, he

THE PROGRAM

Address of Welcome—

A. D. Page, "Association Island as a Co-operative Meeting Place."

F. M. Tait, Pres. National Electric Light Association. "What Co-operative Effort can do for the Electric Lighting Industry and the Industry as a Whole."

W. E. Robertson, Representing the National Electrical Supply Jobbers Association. "What Co-operative Effort can do for the Jobbers."

Ernest Freeman, Pres. National Electrical Contractors Association. "What Co-operative Effort can do for the Contractors."

R. L. Jaynes, Jupiter, Sons of Jove. "The Rejuvenated Order of the Sons of Jove."

T. I. Jones, Vice-Chairman, Commercial Section, N. E. L. A. "The Commercial Section," National Electric Light Association.

J. C. McQuiston, Manager, Westinghouse Department of Publicity. "Co-operative Publications."

Frank H. Gale, Advertising Manager, General Electric Company. "Co-operative Publicity."

Roger Scudder, Wesco Supply Co. "A Co-operative Advertising Service."

Frank B. Rae, Jr., Publisher, Electrical Merchandise. "The Co-operative Newspaper Page."

H. H. Cudmore, General Manager, Brilliant Electric Works of the General Electric Company. "Harmony Luncheon Clubs and Electrical Leagues."

Philip S. Dodd, General Manager, Co-operative Development Department National Quality Lamp Division, of the General Electric Company. "A Suggestion for an Organization."

L. Doherty, was appointed, consisting of the leading men in each branch of the industry. This committee consists of the following central station men:

Joseph E. Montague, General Manager, Niagara Falls Light and Power Company, Niagara Falls, N. Y.
C. A. Einstein, Vice President, Union Electric Company, St. Louis.
John F. Gilchrist, Assistant to the President, Commonwealth Edison Company, Chicago.
Walter H. Johnson, Vice President, Philadelphia Electric Company, Philadelphia.

showed how that body could develop various classes of business by co-operative effort. His addresses to various associations have given impetus which has brought the contractors and jobbers into closer harmony with each other. A number of informal meetings at Association Island have also served to bring divergent interests together. The meeting at which the last definite step was taken is an example of his genius as an organizer. Nor is Mr. Dodd alone in this work. The "harmony" lunch club idea, which has brought electrical men together in so many localities and made co-operation a working force in many localities, has been developed almost entirely through the work of Mr. H. H. Cudmore. His peculiar ability to bring men together, to interest them in each other and set them to working co-operatively, has made him an invaluable factor in the preliminary development of the co-operative idea—and no doubt will make him absolutely indispensable to its further development. Fifty or more of these clubs owe their existence to Cudmore's enthusiasm—and without the practical demonstration which these clubs have given of the practical value of co-operation it is doubtful whether the present plan of organization would have been considered at all.

As to what the future will hold, it is impossible to suggest. From the abstracts of papers and discussions of the island meeting, printed on another page, it will be plain that the entire industry is ready and anxious to join in any practical working plan that may be suggested. With so wise a head as that of Henry L. Doherty, the Organization Committee can hardly fail to give us such a plan at a very early date. There are a great many serious problems to solve—many divergent interests to consider—but the basic idea has proven itself. Electrical co-operation is assured.

The N. E. L. A.'s Attitude Toward Co-operation

By FRANK M. TAIT, President

At the Seattle convention of the National Electric Light Association, the convention voted that the officers of the Association should appoint a committee of five representative men to co-operate and act with a similar committee from the National Electrical Contractors Association and the National Jobbers' Association to get together and find out what could be done towards forming a co-operative plan for the general good of the entire industry. The National Electric Light Association appointed Mr. Henry L. Doherty, Joseph E. Montague, A. C. Einstein, Walter H. Johnson, and John F. Gilchrist.

If this co-operative work is to be successful it is highly important that the form of organization should be of the right sort. To my mind, there must be no possible discrimination and no possibility of allowing jealousies of any sort to creep in; otherwise we shall not have the benefits and the good results that should come from the right sort of co-operation.

There are a number of difficulties that could be overcome with the right sort of co-operative plan. I don't believe there are many cities in this country where the central station and the electrical contractors are co-operating as they should. The average contractor very often looks with suspicion upon the efforts of the central station. The central station tries to co-operate, but it is often a hopeless job and they are often at swords' points with one another instead of acting together. Now if they could be brought together it seems to me that a

tremendous lot of good things could be done for the benefit of all concerned, and I don't see why a properly planned and developed co-operative scheme is not possible to make this work out as it should be.

But you cannot expect to accomplish this thing in twenty-four hours. We should not attempt to accomplish it too hurriedly, I believe; but if it can be worked out in a cool, calm, businesslike manner, I am confident it will prove a very important factor in bringing about better conditions in the industry as a whole and increasing our growth and prosperity. What we want is a broad measure—one that does not favor any particular interest but favors everybody. Let no interest receive any preference but let all receive equal consideration. If this can be done, then what the central stations have done in the past in the way of increasing results and profits will be no comparison to the results that will be accomplished in the future.

The business will become greater as the scope of the co-operation plan becomes broader.

The Jobber's Attitude

By W. E. ROBERTSON

The jobbers, as a class, have from the beginning been in thorough sympathy with the co-operative movement. At the time that the Co-operative Electrical Development Association was being promulgated by Mr. Crouse, the jobbers were in sympathy. They have always given this movement an attentive hearing and have always been willing and open-minded in relation to it.

Now, some of the things that confront us I want to touch upon. For instance, a central station is apt to think that jobber, contractor, and dealer do not understand the merchandising of goods because, forsooth, the central station sells an article at cost or slightly above. Now, for a central station to take that position is an absurdity. As a sound merchandising proposition, only a few in the jobbing and merchandising business could attempt it.

The one big thing on which we can all agree is that if a little is chipped in by everybody in a co-operative movement for the purpose of rapidly developing the electrical industry, there is bound to result an increased profit to all. That is one thing on which we can all agree, no matter what our differences of opinion may be as to other matters.

Now, if everybody can be satisfied as to the absolute fairness and impartiality of the movement, I believe the experience of the last six or seven years has prepared the minds of enough men in all branches of the business to warrant the trying of the experiment of parting with a certain percentage of sales per annum to support such a movement; and then the launching of the scheme will require a thoroughly considered plan which commercially promises success and which will impel or compel the continued interest over a reasonable period of time. It doesn't make any difference how good our scheme is; it doesn't make any difference what ideal we are working toward; if the men who may be selected to do this work only give it casual attention and feel that if it does not succeed the amount of money that has been put in it and lost does not amount to much, why then the thing is bound to be a failure from the beginning and there is no use of launching it.

The jobbers of the country are in thorough sympathy with the idea, provided it is developed and worked out along proper lines. Our committee, which is here with

you, has the power to contribute substantially. Individually, we feel capable of making a profitable living, in this industry or some other; but we would like to enter into the plan of co-operation, in order that there may be a fuller measure of prosperity for all branches of the business than exists at the present time.

The Contractor's Attitude

ERNEST FREEMAN
President National Electrical Contractors' Association

I can see the electrical contractor coming into his rights, but I am unwilling to admit that co-operation would be any more beneficial to the contractor than to the manufacturer, jobber, or central station.

It is my belief that the electrical contractor of today is in a better position than ever before. His general condition is improved: he is a bigger business man. Through his associations and by his own personal push, he is slowly but nevertheless steadily coming into his own.

But, by co-operation, I can see ripened into reality things which in the past have been but dreams, and at a much more rapid pace.

If general publicity creates a demand for our product, then the contractor who fails to avail himself of the opportunities offered by this co-operation is indeed making a mistake. It seems to me that this is the place for men in my line to spend money, because if a demand is created or a desire is instilled into the public mind for electrical apparatus the contractor must let it be known who he is and what he is in order that these demands and desires may be gratified. The contractor is the most feasible one to look to for these things.

So I say to the men of my organization,—let us go out and get better acquainted with our competitor, with our jobber, with our manufacturer, with our central station man; and let us see if we cannot get to know one another well enough to call each other by our first names. I think it has been found to be a fact that where the electrical interests have gotten together, each has found the other to be a pretty good fellow, after all, and much good has naturally followed.

The electrical contractor is for co-operation, because he can see in it a brighter and better future, because he can see the possibilities of a larger business, and because he wants to be in any and all movements tending to advance the electrical field as a whole. We therefore offer you our influence and support.

The Attitude of the Sons of Jove

By R. L. JAYNES, Jupiter

The order of the Sons of Jove was organized fourteen years ago. The object was the cultivation of a spirit of friendliness and good-fellowship, from which grew practical plans for commercial co-operation. The membership is today very close to 8,000. We have grown and prospered. We now have an organization that can be an important factor in plans for practical co-operation.

We have no selfish interests or self-interests to conserve, but we are *boosting the whole game*, and it seems to me the Sons of Jove is the logical solution of this co-operative problem.

The Attitude of the Manufacturers and Others

Mr. A. W. Burchard, General Electric Co.

The suggestions that have been made here are directly in line with modern progress. I feel very hopeful that results of

which we can all be proud may be realized through the enthusiastic co-operation of those who are represented here.

Mr. Jerald Swope, Western Electric Co.

The Western Electric Company would be delighted to spend thousands of dollars on a co-operative advertising campaign, and so would other jobbers all over the United States, if they had an opportunity of marketing their goods in connection with the central station in the same manner as is done in Cleveland. If you solve the question of merchandising policy it seems to me that there can be no question of co-operation, all of the interests would be delighted to contribute a much larger amount than I think even you gentlemen realize.

Mr. S. L. Nicholson, Westinghouse Electric and Manufacturing Company.

I believe that co-operative organization would be a great thing for the entire industry if carried out on a broad and compre-

hensive scale. So far as the Westinghouse Company is concerned, we will be very glad to help make it a success.

Henry L. Doherty.

The gas business represents a remarkable example of a business that has insisted on carrying on its own work without co-operation—doing everything itself, selling appliances at cost or less than cost—and to my mind this policy has meant the realization of only a very small percentage of the opportunities of the gas business. If it can be demonstrated to the central stations that they can get more appliances in service by leaving the sale of these appliances largely to jobbers and dealers, the central stations will be only too glad to co-operate to that end. But just simply having the spirit of co-operation will not make co-operation a success. There are a great many serious problems that must be worked out. If we go about it in the right way I have no doubt but that co-operation can be worked out and be made not only a practical thing

but can be made marvelously effective.

Mr. Ernest McCleary.

There are contractors in the country today who are able to pay their bills. When those men started they were lucky, most of them, if they had \$50 or could get credit for \$50. They were not business men when they went into business, and I believe much credit is due them for their industry and the perseverance which have brought them well deserved success. I know that I couldn't begin to accomplish the things which the central station men want done if it was up to me to do so, but give me time in which to prepare myself and an opportunity to make my plans and I will agree to take care of every bit of merchandising business in my city and I won't ask for help. at that. The trouble is that we don't know each other; but in future, if we, as the contractors, don't understand your position, that is your fault, and if you don't understand ours, that is our fault. Nothing but ignorance can keep us from working together.

Go-To-Hell Correspondence

A Little Study of Present Conditions in Central Station Form Letters to Customers

BY EARL E. WHITEHORNE

[Not very long ago, in one of the big city central stations, someone in the collection department blundered. It was not an unusual blunder—it often happens—but this time it happened in the wrong place. He sent a cut-off order that stopped all work on a gigantic city improvement, because the contractor on the job had held up his power bills pending the settlement of some dispute. The power was off an hour—but the newspapers and the Noble Army of Knockers were on, with both feet, for a week.

When this kind of thing happens to the single citizen, the papers never hear of it—but what does this householder say and what do his friends think? And when it doesn't quite happen—when it's only threatened—what then? It is taking place constantly, as a mere matter of routine, in practically every central station in the land—probably in your company—and it's doing harm. Why don't you stop it? It trips up your salesmen. It robs you of good-will where you need it most. And it isn't necessary.

This article has been long deliberated. It is the result of keen study of conditions. It is worth the very serious consideration, not only of central station men, but of electrical contractors, of electrical manufacturers, and of every other man who is interested in the development of our market, and can add an influence toward the correction of this unhealthy condition.—Editor.]



HERE is no letter that goes out of the central station office that receives less attention from the man who sends it than the collection letter. Time and thought and purchased expert skill go into the preparation of the cleverly processed letters that are sent to prospects—the business-getting letters—but the customer, the man who pays the money that makes the wheels go 'round—gets a printed slip. A printed slip is good enough for him or a hit-or-miss, filled-in form letter, sent by the third assistant bookkeeper to a list of men he never saw, because the second assistant bookkeeper told him to. If it is a fairly polite letter and the weather's fine and the customer well disposed, it brings in the money and saves the considerable cost of more correspondence, collector's calls, a trip for the cut-off wagon, and maybe lawyer's fees and court charges. If it is a bad letter, it produces some of the money, perhaps, but also it loses many friends and stirs up dislike and distrust, that goes on month after month breeding other collection expenses that might have been avoided.

When you consider that the relationship between the central station and the majority of consumers consists solely in the reading of meters and the presentation and collection of the monthly bills, and further that the man who pays them does not even see the meters read, the importance of the careful handling of this detail begins to stand out as it should.

It's different with any other household account, the grocer, the butcher, the coal man, the livery stable. When we want to do business with them we give an order, the

service follows and we know it, and whether it is satisfying. We are in constant touch with these tradesmen and we know when they are taking care of us. But with the Electric Light Company, it's different.

We begin by signing an iron-bound contract, all full of clauses for "the party of the first part" and with little word of cheer to the customer. A contract seems quite unnecessary red tape to us—the others don't ask it—but we sign and the light is turned on and we are delighted with it. But after a while when we are used to it, we take this service as a matter of course, and never think of the human institution—the company—behind it, save only when we receive their request for money. The service is good—yes—but we expect that—we're paying for it—so in the long run unless this electric light company keeps us in close touch by its advertising, we know them only by their bills and their "duns" when we get behind. And in ten cases out of eleven this central station risks our good-will and entrusts the hope of future business to a routine set of curt and carelessly used forms that offend us at every step by their lack of decent manners.

The best collection letter I ever saw came to me from a dentist and it was only eight words long—but it worked. I owed this dentist five dollars and I let it drag along—neither from poverty nor cussedness—but from plain procrastination. He sent one or two statements and then came this letter:

My dear Mr. Whitehorne:

I've done my part—won't you do yours?
Sincerely,

H. A. S.

I sat right down and wrote the cheque and I wrote him a letter too, telling him

that he had the best collection note I had ever seen and to stick to it.

This man had discovered the secret—the power to throw the limelight square on the human issue—man to man. He used eight words, but he put a personality in the message that appeals to the innate sense of fair play and—well, it worked. It was strong in the spot where the average central station collection letter is weak; it neither spilled a lot of words in an easy-seen attempt to veil its real objective nor did it offend. It just went after that money—and got it.

There is no situation more distasteful and embarrassing to the average man than to have to go to a friend and say, "Here, Bob, I want that money you owe me." It's a mean job for the man who says it, and it's harder yet for Bob. They may trust each other like brothers and be on terms of intimate confidence, yet there's sort of a traditional sting of reproach that makes the situation delicate. "When e'er you lend you lose a friend," the song says, and it's often been true. But more friends have been lost to the central station through blundering collection letters than in any other one way.

The normal man doesn't enjoy owing small bills, and if he does get behind with the tradesmen and the electric light company, he expects to receive a statement marked "evidently overlooked—etc." Then he expects another stamped "Please Remit," then a letter from his creditor saying "Can you favor me with a cheque? I have some big bills to pay—etc.," or something of the sort. That's the courteous and conventional treatment that we are all used to. We all get behind occasionally with somebody, through carelessness or because we

are temporarily short of ready money, and we have all received these letters; we expect them. It means good business system and we approve of it. But what do we think of the man who because a small bill has hung for three months writes us a crusty and ill-mannered letter or meets us on the street and duns us discourteously? What do we say to him? How much more business does he get?

The central station can offend us in the same way and quite as easily. We continue

able on or before . . . PLEASE REMIT." Now the word "Delinquent" has an ugly sound and it is entirely unnecessary on this message to a customer. Why put it there, and brand the man a "delinquent"? He's probably a good fellow. He may be hard up for the moment, because of sickness in the household. He may have lost his job. You would never think of stopping him on the street, shaking your finger at him and solemnly calling him that name. But—what's the difference?

good business, does it make friends to set it down this way in black-face type? Then it adds, "Please call at this office at once and settle." And suppose the man was sick—could the cheque be mailed? The grocer would be willing to call for the money, and he would probably say "Thank you" when he got it.

Form 3 goes a step further. It is printed in red ink and starts, "CUT OFF NOTICE," mentions the fact that bills are past due, threatens disconnection and then adds as a final jab that if you are cut off you will have to pay a penalty to get back in the fold. "Bills are due . . . on date rendered and become delinquent ten days after." This sounds a bit arbitrary and unusual to the man who knows that the business of the world is done on credit, and it makes that word "respectfully," above the signature, look a bit inconsistent.

Nobody who understands the physical conditions under which the central station operates will question very hard the justice of a reconnection charge, but how many of your customers do understand? Why wave red flags at them and throw pepper in their eyes?

Form 4 is a printed slip that accompanies each electric light bill in a middle-west city. If the manager of this company received a bill from his livery stable and found written across the bottom, "If you want to know anything about this bill come here to the stable and ask me. Otherwise it goes—and I want my money Wednesday"—what would this manager say? Yet—where is there any difference?

This kind of thing—this Go-to-Hell attitude—is not necessary. Just read these two notices which I have reproduced as Form 5 and Form 6 and this letter. It is used constantly by very large central stations and does a lot of good. It reads:

"We very much regret your having taken offence at our letters of the 4th and 14th inst., reminding you that your account was open.

"You can readily understand that with the large

Form 823.

DELINQUENT NOTICE.

Please take notice that your bill for GAS, ELECTRIC LIGHT, POWER service, amounting to \$_____, is unpaid.

We wish to call your attention to the fact that our bills are payable on or before the 10th of the month. Please remit.

RAILWAY & LIGHT CO.

M _____

OFFICE _____ 191

_____ & LT. CO. _____

Form 1. The word "delinquent" has an ugly sound—why put it there? It's on a printed form, cold and unfriendly, and does harm.

to purchase current, because there is no other electric light to buy; but it's bad business, and it costs money.

For a year I have been making a collection of the forms used by central stations in their relations with present customers. They come from north, south, east, and west and from little towns and big cities—collection letters and cards and the letters regarding the testing of meters, just another phase of the collection process. After all, that's about all there is to it, when you eliminate the business-getting correspondence, and out of the pile there are only a few that are safe, to send on so delicate a mission. For why should any central station spend money to its utmost to advertise its service, to connect up new customers, and to maintain a favorable public sentiment, through the efforts of its salesmen and officers, and then by careless and offensive methods of collection, risk all its investment in good-will? The most prominent words in all this form correspondence are "CUT OFF WITHOUT NOTICE." Do the other purveyors to the household use this kind of language in collecting their money from good customers?

These forms are all exact reproductions of notices which have been submitted to me by central stations whom we all know. Naturally the company names have been painted out. I am submitting but a few but they are particularly typical of the general run. I believe that they are in use not because they represent the manager's ideal of the most effective, the best he can do, but because the manager has not paid any attention to this point we are considering. He has simply been after his overdue accounts. If he were to call upon the customer personally, he would probably handle the matter with thorough courtesy and tact. His printed messenger should do the same.

Take a look at Form 1. It is headed "DELINQUENT NOTICE." It says—"Please take notice . . . our bills are pay-

Besides, it's a printed card, this Form 1, cold, unfriendly, and pessimistic. It says, "take notice." It doesn't talk man to man. There's nothing personal about it. Who minds owing money to an ill-mannered printed form? And then, to make it worse, after this "Delinquent Notice," this company sends out a "FINAL NOTICE," another card printed on bright red stock and this card says, "On . . . we mailed you notice that your bill . . . was unpaid.

PLEASE BRING OR SEND THIS BILL TO BE RECEIPTED

TO _____ RAILWAY & LIGHT CO. DR.
710 MARKET STREET

DELINQUENT BILL

Your Bill for Current consumed from _____ 191 to _____ 191
amounting to _____ \$
is past due.

FAILURE TO RECEIVE NOTICE DOES NOT ENTITLE CONSUMER TO DISCOUNT. IF BILL IS NOT PAID PROMPTLY, CURRENT MAY BE CUT OFF WITHOUT NOTICE.

PLEASE CALL AT THIS OFFICE AT ONCE AND SETTLE

Form 2. Does a card like this make friends? What would you say if your grocer sent you a card like this?

Settle by . . . or we shall be obliged to DISCONTINUE THE SUPPLY."

YE GODS! Send a man a "FINAL NOTICE" on a blood-colored card and surely nothing less than murder must follow. Suppose the ice man did it to you? Where would you hit him the first time?

Notice Form 2. It calls the same hard name and says, "Failure to receive notice does not entitle . . . current may be cut off without notice." It may be legal, it may be justice, but is it good manners, is it

number of consumers we have on our books, it is very necessary that we adopt a definite system for the collection of our bills. It is not at all a question of our faith in your willingness and ability to pay your light bill, but rather of keeping in touch with you and knowing that our bills are being received and the service used by the consumer in whose name bills are rendered.

"We believe you will agree that we are entitled to some acknowledgment of the receipt of our bills and letters.

"Thanking you for your patronage and trusting that you will accept our assurance that we did not for a moment doubt your intention of paying the bill in question, we beg to remain."

I have another printed form from New England that says:

"Dear Sir:

I beg to call attention to your electric light bill which is now overdue and unpaid; doubtless this matter has been overlooked and may we not receive a check from you soon?

Respectfully yours,"

It has a touch of kindness, it gives you the benefit of the doubt—surely this is none too much to extend to your customers.

Another notice says:

"..... Company is controlled by the Public Utility Laws of Wisconsin. We are compelled by law to strictly adhere to our discount rules without deviation, and wish to assure you that it is not a mere technicality on our part which compels us to ask payment of a discount you may forfeit."

the name filled in and matched with every mark of an original letter. The amount could be typewritten down as a postscript

good influence would be worth forty times the difference. I would use three letters, perhaps—something like this:

WE WISH TO CALL YOUR ATTENTION TO THE ENCLOSED BILL,
WHICH CARRIES AN OVERDUE BALANCE OF _____

IF YOU HAVE ANY QUESTIONS TO ASK REGARDING THIS BALANCE
WE WILL BE PLEASED TO ANSWER THEM AT OUR OFFICE. OTHERWISE
WE SHALL CONSIDER THE BILL IN ORDER AND MUST ASK THAT PAY-
MENT BE MADE NOT LATER THAN THE 5TH INST.

VERY TRULY YOURS,

_____ LIGHT & POWER CO.
INCORPORATED

Form 4. It says, "We will . . . answer them at our office." Suppose the customer is ill, could a cheque be mailed?

Form B-95--3-12-12--1000

_____ LIGHT & POWER CO.
INCORPORATED OFFICE, 406 BROADWAY
CUT OFF NOTICE

R. N. _____

M. _____

Dear Sir:

The account of this Company against you for {gas service
electric service} furnished, as per bills rendered,
merchandise
amounting to \$ _____, is past due.

You are hereby notified that unless same is paid at the office of the Company before noon
_____, SERVICE WILL BE DISCONTINUED, and will not be
resumed until account has been paid in full, including a charge of \$1.00 for re-connecting.

Bills for electric and gas service are due and payable on the date rendered, and become delinquent
ten days thereafter.

Respectfully,

_____ & POWER CO.
INCORPORATED
By _____ Assistant Treasurer.

Form 3. This form is printed in red. Does that make it less arrogant? Isn't it a bit raw to say, "... become delinquent ten days after"? Other bills don't.

That's the touch! We consumers appreciate such conditions and are responsive to such a plain, honest statement. It is not necessary to wave such terms as "delinquent" and "demand" at us. As a company in Michigan expressed it well, in a letter to me the other day:

"We have no such thing as a form letter; in fact, we are prejudiced against them. All our letters are personal letters to the party. This applies to solicitations for new business, meter tests, and handling of complaints; in fact, everything is treated in the same way that you would be treated if you went to your banker or merchant with some complaint regarding their service."

Personally, I think that if I were the manager of a central station I would not use printed forms of any kind in making my collections—except the bills. I think I would send a real live letter every time, though, of course, they could be made up in quantity by imitation typewriting, and

and some clerk who wrote a good, strong hand could sign my name. They would cost very little more, in either printing or labor, than the printed slip, and surely their

"Mr. James H. Baldwin,
17 Forest Street, City.

My dear Mr. Baldwin:—

"We are sorry that you force us to insist upon an immediate remittance to cover your overdue account.

Dear Sir:—

You have doubtless overlooked paying your electric light bill for two months and we respectfully request that you give this matter your immediate attention. Failing to receive payment on or before _____ we shall assume that you do not desire our electric service and we shall accordingly remove our meter.

Respectfully,

_____ POWER & LIGHT CO.

COLLECTION DEPARTMENT.

191

Form 5. How different is the tone of this notice! It costs no more to print it a bit courteously.

I.

"Mr. James H. Baldwin,
17 Forest Street, City.

My dear Mr. Baldwin:—

"That bill of ours—the overdue balance—has apparently slipped your mind. Won't you please take care of it within the next day or so?

"We are sorry to have to bother you about this small amount, but naturally we have a great many such accounts and to carry them along means a great deal of trouble and expense. We know you do not want to add to the burden.

"Please send the cheque. We'll appreciate it.

"Very truly yours,

Yourtown Light & Power Co."

"The overdue balance is \$7.42."

II.

"Mr. James H. Baldwin,
17 Forest Street, City.

My dear Mr. Baldwin:—

"We've done our part. We've furnished electric service to your household for light and the other electric home comforts. Now, won't you do your part and pay that little bill we wrote you about?

"We'd rather lose the money than the friend; we don't want to have to talk about discontinuing the service or any other unpleasantness—but none of us can afford to do our work for nothing. We know that's the last thing you want.

"Please write a cheque now—while you think of it—and we can wipe the slate.

"Very truly yours,

Yourtown Light & Power Co."

"The amount due is \$7.42."

III.

Form 51

Tenn.

M

We beg to call your attention to the enclosed statement of account which is past due. Kindly favor us with an immediate settlement. Not hearing from you within three days from date, we shall conclude that the service is no longer desired and shall discontinue same without other notice.

A charge of fifty cents will be made to cover the cost of reconnection where service is discontinued for non-payment.

Yours truly,

RAILWAY & LIGHT CO.

By

Form 6. Another card that has evidences of good manners behind it. It takes for granted that the consumer is not a scoundrel.

We have written you two courteous letters and have made every effort to avoid any unpleasantness, for we value your friendship highly. But what can we do?

"If the grocer can't get his money from a customer, in self-protection he refuses to deliver any more groceries. It's fair and reasonable—you don't criticize him. And with equal fairness, we will reluctantly discontinue our service to your household if you do not pay us before Monday.

"Hopefully yours,

Yourtown Light & Power Co."

"P. S. We'll call for the money if it will be of any convenience to you. The amount due is \$7.42."

I believe that those letters will bring in the money. I believe it, because I have used letters of the same man-to-man kind in collecting small accounts for a number of years, and like that of my dentist friend—they work. They are friendly letters. They are cheerful letters. They take for granted that the man who owes is as good a fellow as the creditor, that he's as honest and decent and full of sound common sense. They talk to him in the same courtesy and reasonableness that would mark a personal call on this man at his office or his home, for the same errand.

Elbert Hubbard, of Roycroft fame, has used with fine effect a collection letter reading, "Pay up! Damn you," which is written in blue pencil on the bottom of a bill. But Hubbard is different. That's his business. The central station collection letter doesn't want to be fresh or funny; it doesn't have to be clever, but if it is to do the best work it must be honest and natural, just a straightforward courteous letter from one man to another—friendly and optimistic—but right to the point. It must get that money and it must keep that friend.

When it comes to a test of the meter, it is the same sort of a situation, only with the tension a little more keen. The customer

has questioned the meter, he does not believe he owes the money, yet when you offer to test his meter as proof, he consents because, apparently, it's his one chance. But he doesn't understand how the meter works, he doesn't know you are actually going to test it at all, or that your test will

J. S. E. Co. AM-2-12. AGREEMENT FOR ELECTRIC CURRENT. METER RATES—LIGHT. Res. No. 191

To Light Company.

You are hereby requested and authorized to connect your mains with and supply electric current to, an equipment for about _____ installed upon premises at No. _____ in _____ and occupied as a _____

and _____ agree to use, subject to the terms and conditions endorsed hereon, which are hereby made a part of this agreement, electric current supplied by your Company for the said equipment for a term of _____ year from the commencement of supply, and further agree to pay on presentation of bill for said electric current used during each month, or shorter period, as measured at and by the meter provided by the Company.

It is agreed that there shall be no charge for the renewal of standard incandescent lamps on meter service (except for the first installation and for those mechanically broken), nor for the carbons and trimming on standard arc lamps, nor for current other than that actually supplied, except as provided herein or specifically agreed upon by the consumer.

It is agreed that no change shall be made in the equipment or in the type, size or number of lamps, or other appliances connected therewith, and that the current shall not be used except for the equipment scheduled, without previous written notice to and written assent from the Company, on which assent this agreement shall apply.

It is agreed that at the expiration of the stated term this agreement shall continue in force until terminated by thirty days' written notice from either party.

This agreement shall not be binding upon the company until accepted by it through its proper executive officer, and shall not be modified or affected by any promise, agreement or representation by any agent or employee of the Company.

Accepted this _____ day of _____ 191 _____ LIGHT CO.

By _____

Consumer: { _____

Deliver _____ Install _____

Deliver Bill _____

Get Key _____

Form 8. This contract form talks United States language—man-to-man and easy to read. It makes a good impression.

be accurate or honest, if you do. He has to take your word for it all, yet he feels that you are a bit unfair in siding entirely with this intangible meter. Everything in use gets out of order at times—why not the meter? Does it make him feel any better to get a cold-blooded statement on an already printed post card, like the one shown in Form 7? Doesn't it confirm his sus-

actually searching for trouble in his meter, and not just playing—fooling with him.

Then when the report came, showing the meter O. K.—as it probably would—I would send him a friendly letter like this:

"Mr. James H. Baldwin,
17 Forest Street, City.
My dear Mr. Baldwin:—

"We have just received a report from our engineer covering his examination of your electric meter. A very careful series of tests has been made in an earnest effort to discover some trouble that might have caused the unexplained increase in your electric light bills.

"The tests have been very thorough and covered a great many hours operation under varying loads, but your meter has proved itself to be accurate and correct. We found that it has been running about 1-2 of 1 per cent slow, which, of course, would mean a very small part of a cent undercharged on your bill. There can be no question as to your having used the amount of current registered.

"We are going to ask you to make a habit hereafter of reading your meter yourself, once a week. It only takes a minute and if you do it when you wind the clocks, for instance, you won't forget it. It will enable you to check your bill absolutely and see just where the current is used. Also, if you are still using carbon lamps, replace them with Mazda lamps and take advantage of that economy. We want you to be entirely satisfied with the service.

"We shall appreciate it if you will pass the bill now and send us a cheque within the next day or so.

"Very truly yours,
Yourtown Light & Power Co."

I believe this man would be a friend of ours from that time on.

It all gets down to the one thing—avoid

Form 112-1000 6-10

Date _____

Dear _____

An investigation of your Electric meter has been made and readings and original bill found to be correct.

Please be advised that in order to receive benefit or the discount, the original bill should be paid at our office on or before five thirty o'clock p. m. on the 10th inst.

Remarks: _____ Very truly,

Electric & Gas Co.

107 West Maine St.

Form 7. Would you believe this card if you already doubted your meter and the company behind it?

red tape and folderol; impress the consumer with your thoughtful courtesy and the personal service he receives. It is just as easy to reduce these man-to-man letters to form and routine as the chip-on-the-shoulder attitude that is so lamentably prevalent. Let it begin with a contract form that talks United States, like Form 8,

on, so we are quite as anxious as you to expedite matters.

Narragansett Electric Lighting Co.,
Providence, R. I.

A well-worded return card is attached.

Send out some good "read-your-own-meter" card, when the man can't get in.

Transferred from _____ Deposit No. _____ Amt \$ _____ L. O. No. _____

THIS AGREEMENT, made and entered into, this _____ day of _____, 191____,

by and between **LIGHT & POWER CO., Inc.**, hereinafter called the Company, and _____, hereinafter called the Consumer, WITNESSETH:

That in consideration of the Company furnishing the Consumer current to supply electric light upon the premises, No. _____, occupied as a _____,

for an equipment consisting of _____,

(Subject to the terms and conditions endorsed hereon, which are hereby made a part hereof,) during the term of one year, beginning the _____ day of _____, 191____, and thereafter until written notice of either party is served on the other, the Consumer agrees that the consumption shall be no less than the total requirements, and shall pay for said current monthly at a rate of 10¢ per kilowatt hour.

A cash discount will be allowed on all bills for current paid within five (5) days from date of bill, provided the account is paid in full.

The Consumer further agrees to use and pay for 11 kilowatt hours, each and every month during the life of this contract.

IN WITNESS WHEREOF, the parties hereto set their hands and seals, this day and year first above written.

Accepted _____ 191____ (Signed) _____

LIGHT & POWER CO., Inc. By _____

By _____ Commercial Agent. Witness _____

Form 9. This contract is so full of lawyer lingo that it is actually foreboding. Why start out that way? What is it good for, anyway?

instead of a string of lingo that suggests a shyster lawyer, like Form 9, with its "hereinafter," its "witnesseth," its "parties," and its "hands and seals" rigmarole. We don't talk that kind of stuff in buying any other household commodity. It has a scary sound.

Follow this up with a rational and satisfying explanation of the common troubles, in getting the inspections on new work. One company sends out a return post card whenever a new-installation contract is signed; it is fine. It reads:

PLEASE READ THIS NOW!

It May Save You Considerable Disappointment and Trouble.

When you sign an application or agreement for either electric light or power, asking the Narragansett Electric Lighting Company to connect you for service, we are anxious to respond at the earliest possible moment. We are naturally eager that the sale of current should begin at once, and we have every desire to give prompt attention to your request.

But there are sometimes delays which we can not prevent. VERY OFTEN YOU CAN.

If you do not get the light or the power and do not understand why, please fill out the attached mailing card, put a one cent stamp on it and mail it to our Sales Department. If more convenient, telephone us; call "Union 741." We will be glad to investigate and report to you at once.

We have listed some of these possible delays on the other side of this card.

POSSIBLE REASONS FOR THE DELAY

As a protection against possible dangers from unskillful or incomplete electric wiring, in every installation, both the wiring and the fixtures must be inspected and passed before we are permitted to turn on the current.

We are not allowed to turn on electricity in the City of Providence and towns of East Providence, North Providence, Johnston, and the City of Cranston until we have received a certificate from the Insurance Association of Providence, covering both wiring and fixtures. In the territory not included in these towns, both the wiring and fixtures must be passed by our own inspectors before the current can be turned on.

The wiring and fixture contractors who did the work must send an application to the proper inspector in every case, before the inspection is made. This is sometimes overlooked or delayed and we are forced to wait. *It is to your interest, therefore, to make sure that the contractor notifies the inspector promptly, for in the suburban districts where the distances are so great, some delay is often unavoidable before the inspector arrives.*

Our income does not begin until the current is turned

The customer is pleased at your willingness to let him mark the reading on the dials, no matter whether he understands that you can't lose, or not. Handle your complaints in the same way; use a follow-up card like the one they have in Mobile (see page 373). The whole thing resolves itself into the matter of collections—keeping the consumer happy—educating him to the use of more current and getting in the money. That's the electric light and power business, from where the stockholder sits.

The central station industry has outgrown most of its old-time, stand-pat habits, in the last six years. The public isn't supposed to be damned, officially, any more. But the old-time idea of collection procedure seems to linger. Get out your own collection forms—right now—and compare them with these I have reproduced and those I have suggested.

Are yours the Go-To-Hell kind?

Which is the best?

Adopt it today.

"Tell Us First"

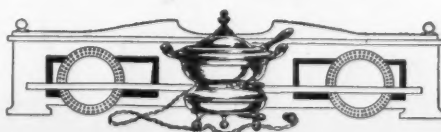
The Lawrence (Kas.) Railway and Light Company has hit upon an apt slogan that is used occasionally on printed communications to customers, on a tag for instance, which is tied to the meter when installed. The tag is red and diamond-shaped and reads:

When
Electrical Difficulties
Arise

Let Us Know FIRST

Your Neighbors cannot Remedy it.
We can, and do it promptly.

LAWRENCE RAILWAY
& LIGHT CO.



A Prize Drawing in Denver

By ROY G. MUNROE,

The Denver Gas & Electric Light Company,
Denver, Colo.

At the South Denver Branch Office of the Denver Gas & Electric Light Company it is customary to hold a "Spring Opening," each year. At these "openings," demonstrations are made of the various gas and electric appliances; biscuits, waffles, coffee, and toast are prepared electrically and served to the visitors; and several appliances are given away in a "prize drawing."

This year this drawing card was devised for the twofold purpose of attracting visitors to the office, and of securing a list of good "prospects." These cards, together with formal invitations, were delivered to the company's consumers and prospective consumers during the week preceding the opening. As a result, the Branch Office was crowded during the entire afternoon and evening, a number of gas and electric

5th Annual Opening

SOUTH DENVER Branch Office
The Denver Gas & Electric
Light Co. : 111 Broadway

Prize Drawing Fri. Aft. & Eve. May 31, '12

The appliance after which I have marked (X) is the one I do not possess and in which I am most interested. Should I win and accept the prize I will connect and use it at my address below in Denver.

LIST OF APPLIANCES TO BE DRAWN

GAS WATER HEATER . . .	
ELECT. COFFEE PERCOLATOR . . .	X
ELECTRIC IRON	
ELECTRIC TOASTER	
ELECTRIC TOASTER	

Name *Mrs. H. S. Wentworth*

Address *1872 So. Pearl St.*

Contestants will be allowed a chance on only one of above appliances. Please mark (X) after the appliance you most desire.

appliances were sold, and over seven hundred cards were deposited in the drawing box.

As each card is a signed statement expressing a desire for some one of our appliances, and as each person when calling to deposit the card witnessed a demonstration of the operation of all of the appliances, it is obvious that the list of prospects secured is most valuable. The cards were first used to check the company's prospect files, after which they were given to the salesmen on the various territories who called at the addresses shown as rapidly as possible and endeavored to sell the appliances specified. The sales made on the day of the opening alone justified the small expense incurred for printing, palms, groceries, and incidentals.

F. H. Welling.

Mr. F. H. Welling, General Sales Manager of the Federal Sign System (Electric) has been appointed Vice-President and Western District Manager of the Federal Sign System (Electric) at California, and his headquarters transferred to San Francisco.

The Electric Laundry—An Unattained Opportunity*

Plain Statement of the Case by a Man Who Has Studied Both Sides in His Own Day's Work

By JOHN RICHMOND, The American Laundry Company



THE general question of the relationship which can or should exist between central stations and laundries is a very complex one. From time to time in the electrical papers we notice paragraphs or articles giving tests on laundries or referring to central stations selling current to laundries and pointing out the resultant economy, but in no case referred to in print have we been able to find that any central station was supplying a laundry, the plants referred to as purchasing current all being exceedingly small equipments and none of them to be considered as representative. Our personal knowledge of laundries is somewhat extensive and covers a large range of territory, but we can say without hesitation or danger of contradiction that with one or two exceptions, where partial service is furnished, we know of no laundry purchasing current from central stations. We can give you a list of probably twenty to thirty plants which purchase some current; part of these purchase for overtime or for operating a few of the machines; the remainder are plants of such size as hardly to justify their being classed as laundries.

The central station is in position to render invaluable service to the laundry industry. The laundry industry, on the other hand, is not only in position but ready to be a large and grateful customer of the central station; yet no business results. After several years' experience and careful noting of the canvass made to obtain this class of business, we are free to admit that we consider it has never been gone after in the right way. Misrepresentations by salesmen due probably to misunderstanding or lack of knowledge of laundry conditions, have occasionally resulted in the purchase of current by a laundry. In no case, however, have the laundries continued to purchase current, and more than this, they have taken every opportunity subsequently, at their conventions and elsewhere to mention the folly of believing central station salesmen.

Instances like those referred to have contributed more toward loss of laundry business than any other single factor, because in each case the parties concerned have been able to prove conclusively by comparing their costs for heat and power when purchasing current from the central stations and when generating their own, that they could not afford to buy current and generate steam. Yet an intelligent study of laundry conditions, of the personality of the average laundryman, of his progressiveness and sound business sense, proves conclusively that every laundry can be and should be a central station customer and booster. The campaign to accomplish this result will need to be conducted along lines very different from anything heretofore followed.

The problem resolves itself briefly into the following: Is it better for central stations to sell to occasional laundries all their power, with the certainty of losing this business in course of time, or to sell to all laundries power for sign lighting not only at the plant itself but at all its branches, current

for overtime work and current for operating the plant on certain days? No laundry of average size and above can afford to operate its plant on central station power. The matter of rate paid for this power has only a pro-rata bearing on the question, as no economy would be effected, be the rate ever so low; yet, on the other hand, a laundry cannot afford to be without central station power for sign lighting, overtime lighting, and overtime work, if this is obtainable on some reasonable basis.

This brings us to the stumbling-block, namely, the question of so-called break-down service. The larger percentage of laundries in the country ask us what they shall install. To this, we have but one answer and that is, find out the current furnished by the central station in your district, and, unless this be single-phase current, install an equipment to correspond. The word "break-down," although it is commonly used, should not be applied to city current furnished to a laundry which has its own generating equipment. The term break-down service misrepresents the condition to the central station in the first place, as its operating department at once raises points against installing an equipment for maximum capacity, where only a small percentage of the transformer or line capacity will be called for normally, and where there is liability to be called upon at times of peak-load to meet unexpected demands.

Break-downs may, of course, occur but they are so infrequent as not to be worthy of serious consideration, and while the term may be permissible in relation to other trades it is not correct as applied to a laundry. Further than this, it is quite possible by the installation of automatic devices, to limit the amount of current taken by any such installations during times of peak-load.

We can quote you instances of many central stations which, meeting our recommendations, have furnished this so-called break-down service, the capacity of the installation being for maximum load, but the current taken (excepting occasionally for such work as repairing an engine, turning down a generator or other matters of that kind) has been confined to overtime lighting, overtime work, sign lighting, and so on. We have found that the amount of current purchased by these laundries has increased every month. Added lights, increased overtime work, because of the facility with which power could be obtained, and further, and more important than this, the use of central station current exclusively on days, such as Monday and Saturday, when only part of the plant was operating, the week's work being not yet collected, or nearly all delivered.

The laundrymen's trouble, so far as operating their own plants is concerned, can be briefly defined as the necessity for having a licensed fireman. When closing time comes they have to close, as their fireman cannot run all day and also overtime. With central station service, however, the ease of running overtime work tends to fix the habit, as considerable overtime can be done with the steam in the boilers and the hot water in the tanks without refiring. Any broad-minded policy along the lines we have

endeavored to describe must result in an increase in the amount of central station current sold to laundries in all towns large enough to support laundries.

The problem of the laundry is not mechanical power but heat. Exhaust steam is better for meeting laundry conditions than live steam, excepting on a few machines. The mechanical power, therefore, which a laundry can use or waste is fixed by its heating requirements. A plant with a large washroom, that is, a plant doing a certain class of work, will need very much more steam for heating than will a plant doing other kinds of work. The size of the laundry is therefore not the consideration, but the class of work handled.

Our general problem and the way we meet it is as follows: We install individual motors on each and every machine used in a laundry. This eliminates friction and belt losses, but adds its own loss from the low efficiency of small motors. The loss in efficiency, however, is much more than offset by the idle time of the machines, each being independent of every other. Having reduced our mechanical power requirements to the lowest point, we then add electric heating, charging of batteries for delivery wagons and other current users. The installation of individual motors reduces very materially the amount of power used. The mechanical power is in the large majority of cases smaller than the heating requirements. If we do not add electric heated machines and other devices, with their resultant saving and economy, we should have to use live steam from the boilers to make up for the deficiency between the steam required for power and the steam required for heating. By adding electric devices we balance our steam for mechanical power with our steam for heating, and have not only the increased convenience and niceness of electric heating over gas, but have saved gas and bettered conditions in other directions.

A plant laid out on this basis offers a very hard problem to a central station endeavoring to show that the use of electricity will effect economies, or that the monthly power bill added to the laundry coal bill for heating will not greatly increase it. This condition is now so well recognized that the average central station salesman and central station campaign for laundry business are not only unsuccessful but decidedly unpopular, the laundryman reaching the conclusion that misrepresentation of facts is intended, or that he knows more about the problem than the solicitor of the central station who is endeavoring to obtain his business.

We can show by reference to many plants and central stations that the policy of furnishing laundry service of any capacity demanded, to be used in any quantity the business may require or judgment dictate, has been a paying one to the central station. We have no doubt, however, that this broad-minded policy, while it would be practicable and wise as applied to the laundry trade, might add complications and troubles at the central station, particularly as regards its bearing on other industries, but it would seem possible to get around this by contracting for a small amount of current for an equipment of the capacity actually required.

* Reprinted from the Report of the Committee of Refrigeration, Ventilation, and Laundry Machinery, presented at the N.E.L.A. Convention, Seattle.

Assuming that you really wish an expression of opinion from us, we feel at liberty to say that in another direction we think the policy of central station management as applied to laundries has been somewhat misjudged. The equipping of laundries with motors by central stations is in no way a current selling question in laundries, because all laundries are installing motors. The economy effected by individual motors is something, improved quality of output, convenience of location and savings along these lines are something, but output can be improved and increased, location can be rendered independent of other conditions and dirt can be eliminated only by the installation of individual drive.

Motors sold for line shaft drive in a laundry are occasionally a convenience, but they do not improve the quality or quantity of work. They reduce only slightly the power consumption and do not remove the expense incidental to dirt and poor light. The saving in first cost of line shaft motors over individual motors is of no importance whatever, as the economy and benefit of the one as compared with the other very soon cover any excess in cost and the laundries know this, yet central stations endeavor to sell line shaft motors to laundries. Further than this, we can quote many instances of central stations recommending line shaft in preference to individual motors and in fact, doing all in their power to discourage the installation and use of individual motors.

The policy has also tended to make laundries sceptical as to the value of the advice they receive from central stations relative to their power installation. It has always seemed to us that the business of central stations is to sell current, and considering the low prices at which motors are obtainable, it would not seem that any appreciable profit can be made on the sale of motors by these companies, unless they go further and furnish the right equipment for the work to be done.

The laundry trade has always been very grateful for advice and assistance. However, as a trade, it watches very closely, and any incorrect advice is apt to react not only against the particular company furnishing it, but against the class of business represented by that company. Opinions of laundrymen who had been persuaded by central stations to purchase current without consideration of class of work or of plant conditions, or who have been persuaded to install line shaft motors instead of individual motors, are by no means complimentary to the central station concerned, and as all laundries are more or less closely allied, the experiences of one are almost certain to affect the entire industry.

We know the field offered to central stations. We know the volume of this field, which we are sure you have had no opportunity to appreciate. We are sure that you have no conception of what a laundry plant is, or of the capital invested in the industry and the number of people employed, or of the necessity for motor drive to this particular industry. We feel we are in position to be of great assistance should a general central station campaign along so-called reasonable lines be organized. We have some influence with the trade. The ability to furnish equipments that will operate all types, sizes, and makes of laundry machinery is a factor to be considered.

The electric vehicle will be the laundry delivery wagon of the near future. The charging of these wagons will be an off-peak load and will be a considerable load. This is only one of the many lines which is beginning to enter into the laundry indus-

try, which can be correctly termed a "new industry" although one of exceedingly rapid growth. But in view of the complex nature of the problems involved, we feel that co-operation is essential and will benefit you largely and materially, and us indirectly along lines of better service and facilities for our trade.

Buying Stock and Buying Light

A Line of Argument Good for the Merchant at This Season

By W. E. BAYARD.

No merchant buys goods that he does not believe he can sell at a profit. Nothing goes into stock that does not promise a good turnover. There is no sentiment about the buyer's work. The selection is made on the cold basis of what the goods will earn for the firm. That's business, and the same principle should govern the buying of light.

Purchasing illumination for the store should not be looked upon as an expense, pure and simple, as a necessary expense. It merits the same scrutiny and the same test that determines the purchase of merchandise—it should pay a profit in the turnover. It should produce in return for its cost, a strong and profitable influence that will help sell goods. It is just as essential that the illumination you buy be the kind of illumination that will stimulate your particular business, as that the stock you buy should promise a good sale.

For instance, in the dry goods store a pure, white, color-true light is of inestimable value at the ribbon counter where customers are intent on matching colors. The same stock that looks dingy under old, inefficient lighting, will be bright and appealing where the illumination is designed to produce the proper effect. It is not that different kinds of lamps should be used in different stores, but that the lighting be installed in direct harmony with the purpose for which it is desired. It is as illogical for a merchant to cling to an antiquated system of illumination, as it would be to retain the old style show cases or old time goods that nobody wants any more.

When John Wanamaker started in business his equipment was of the plainest. It consisted of pine tables and counters, and a lighting system that simply dispelled darkness and did little more. Today, the Wanamaker stores are models of convenience and efficiency. Every detail of the equipment is in the hands of an expert who knows just the proper wood to be used in the counters and the sort of varnish for that wood; or the proper lights for the different departments, where they should be placed, and the kind of reflectors they should have. The illumination is considered just as much a part of the equipment as the show cases or the counters.

When a merchant buys goods for his spring trade, he looks at every piece before he buys and says to himself—"Will this appeal to my people? Will they pay enough for it to net me so much profit?" When he buys display cases and other furniture he makes sure that they will help him in his business. He asks himself if he can sell more goods with them than without. When he hires a clerk he wants to know just the quality of the labor he is buying. He asks himself if this clerk will make enough sales to pay salary and overhead and as much profit as any other clerk he could find. When he buys lighting equipment for his store, when he buys illumination, he cannot afford to be less careful.

The average man is apt to think that

choosing lighting equipment is a simple matter, but it isn't. For after all, it is more than a bright light that you want and it is more than pretty fixtures and glassware. A stranger may blow in with a lamp that seems phenomenally bright or a so-called reflector with lots of "life" and sparkle, but the man may be a faker, and the lamp may burn out in a week. That sparkling "reflector" may not reflect at all, absorbing the light and shedding it over the ceiling where you don't want it instead of on the goods where you do want it. There have been many such fakers selling many such fakes and they have left a common disappointment.

Just as a poorly selected stock of goods means slow sales and small profits, so a lighting equipment that is not chosen with an eye to efficiency will often mean poorly displayed goods, a dim, unattractive store, and consequently fewer customers and smaller sales. Therefore when the merchant buys illumination let him buy it as he does his spring or fall stock, taking into consideration its business-getting and profit-making qualities, looking on it as a very essential part of his stock in trade, which it is.



Call Us Up at Our Expense

Southgate Electric Company, Worcester, Mass.

We send to our customers small books of telephone tickets and ask them to "call us up at our expense." The directions for use are as follows:

Make your call in the usual way. The telephone company will bill you for the amount of the toll, excepting calls made from pay stations which will be paid for in cash. You will get a rebate from us in the following manner:

When you have finished your conversation with us, signal your operator and ascertain the amount of the toll charge.

Fill out a coupon with this amount, also your name or name of your business firm, location and date of order. Enclose the coupon to us and we will deduct the charge from your invoice of the goods.

If the shipment is to be C. O. D. hold the coupon and use it as cash in part payment of the C. O. D. bill.

These coupons are to be used only to cover actual orders by telephone for reasonable amounts, and for points within Worcester County.

When these coupons are used up send to us for another book.

The coupon reads:

Good for cents, the amount of toll charge on Telephone ORDER from,
Name
Place
Date

There are 24 coupons in a book, four on a sheet, with perforations between. The covers are used for advertising display.

Making Charity Co-operate

Charity contributions are the bane of most business men. When a good customer comes in with a subscription list it takes a hard-shell or a diplomat to sidestep the issue without giving offence or signing for more than he can afford.

The following scheme of an electrical dealer in Cleveland is worth copying: During a vigorous campaign of solicitation on behalf of a babies' hospital, this dealer erected a large sign over his door; "This week you can donate One Dollar to the Babies' Dispensary Fund by purchasing an Electric Iron at regular price."

During the first week he made a record sale of flatirons at list price, and for each sale he turned over a dollar to the charity.

24-Hour Service in Small Central Stations

Abstract of a Paper Read Before the N. E. L. A. Seattle Convention, in Technical Session.

By TALIAFERRO MILTON

It is a well-known fact that the consumer of electric current in the larger cities is each year demanding better service, and the large central-station companies are keeping pace with this demand by improving the service from year to year. The inhabitants of small towns are, in turn, beginning to wake up and increase their demand from year to year for better service. In the old days, the proprietor of the local power company in a small town could obtain a fair number of customers by running his plant from darkness to 10 p. m. or midnight. Today it is becoming more and more difficult to obtain customers in the small town unless 24-hour service is furnished.

It has been proved in a great many cases that a continuous 24-hour service can be profitably furnished by means of a storage battery operating in conjunction with the generating apparatus, where such service without the aid of a battery would be impracticable.

With the load which is obtainable in some small towns where the installation of a plant is being considered, to operate only from darkness to midnight, it will sometimes be found that it does not pay to operate a plant at all. If it is attempted to give continuous service by operating the engines and generators for 24 hours per day it will sometimes be found that in the first few years of operation the venture is unprofitable because of the poor load-factor and resulting poor efficiency, and, in larger measure, to the labor item during the day and the early morning hours when the load is so small that the revenue is insufficient to cover the expense.

Even in the old days when the consumer did not demand a 24-hour service, it was found that by furnishing this service without continuous running of the generators, profits could be considerably increased.

The examples quoted below indicate what has been accomplished in the past by small central-station companies prepared to furnish 24-hour service without continuous operation of their generators and without any additional labor for the day shift. If such results were possible in the old days, when the customers' demands were not as great as they are today, and when the power company had to make strenuous efforts to obtain a day load, it is easily seen that today, when the customer is demanding day service, and is more than willing to supply the load, even better results can be obtained by furnishing 24-hour service without the necessity of operating the engines and generators throughout the entire period.

In quite a large percentage of the small towns scattered throughout the country, it will pay to install the direct-current system, using either a 110-volt, 2-wire system, or a 220-volt, 2 or 3-wire system, depending upon the load and the radius of distribution. Certainly nothing is gained by installing an alternating-current system in a small town with a small radius of distribution and a comparatively small load. Using the direct-current system it will usually be found that in the beginning of operation the load from midnight till dark the next day, can be profitably carried on a storage battery. With a direct-current plant equipped with a storage battery for carrying the entire load during periods of light demand, it will not usually be found necessary with a new plant to operate the engines and generators more than 8 hours per day, say from 4 p. m. till

midnight. During these hours, the battery can be charged, thus improving the load-factor and decreasing the generating cost per kilowatt-hour. The battery can then carry the entire load until starting-up time the next day. In this manner the plant can be operated to give 24-hour service with only one labor shift. It has frequently been found that the increased efficiency of the generators, caused by the additional load due to charging the battery, results in delivering the day load from the battery with scarcely any appreciable increase in the fuel bill. This means that the added revenue obtained from the day load is gotten with little if any operating cost, practically the only cost for turning out this day load being the fixed cost on the battery investment.

If the battery plates are installed in containing vessels of sufficient size to allow for increasing the capacity of the battery by the addition of more plates and if the day load increases above the capacity of the initial battery installation, it will be a simple matter to add more plates to each cell and thus keep up with the load requirements. If, after a few years of operation, the load increases beyond the ultimate capacity of the battery, and if the battery capacity has been wisely chosen in the beginning, it will usually be found that when this point is reached, the load will be of sufficient magnitude to make it pay to operate the generators over a longer period of time, or perhaps for the entire 24 hours. In cases of this sort the battery has enabled the operator to build up a day load of sufficient magnitude for economical 24-hour operation of the generators.

The New Windsor Electric Light and Water Company, New Windsor, Md., in 1899 installed on their 2-wire, 220-volt direct-current system a battery having a normal capacity of 120 amp. hrs. With this equipment the engine is started up at dark and runs until 10 p. m., during which time it carries the load and charges the battery. When the engine is shut down the load is about 15 to 20 amperes, dropping to 2 or 3 amperes at midnight, which load continues until morning. The day load varies with the season and weather. It would be practically impossible for this plant to maintain the same character of service without the battery, as the cost of running the generator on the extremely light load would be prohibitive.

An interesting example of a case where the load can be built up with the aid of a battery to a point where it pays to operate the generators for 24 hours, is the Jordan Electric Light Company, Jordan, Minn. In the Spring of 1905 they installed a 280-ampere-hour, 220-volt, 3-wire battery. At that time the town had about 1,400 inhabitants. When first installed the battery was of ample size to carry the entire load from midnight until lighting time the next evening. As soon as the customers found that current was available at all times they began to install current-using apparatus until it soon became necessary to run the engine a few hours each day. This company through its battery has built up a load of sufficient magnitude at present to warrant 24-hour operation of the engines and generators.

The Chester Electric Light Company, Chester, Mass., have a 110-volt, 160-ampere-hour battery. The service obtained from this battery varies widely, due to changes in the load and the supply of water. With an abundance of water the battery is floated continuously across a generator run by a water-wheel. At times of low water the battery is very useful in assisting them

during the peak load, and carrying the entire midnight and early morning load. At such times a gas engine is in operation from 6 p. m. to midnight, carrying the lighting load and charging the battery. There are two dynamos of similar capacity; one run by the water-wheel, and the other by the engine.

In taking up the question of storage battery for a small plant, the problem to be determined is as follows:

From the estimated or existing load curve, determine how much battery capacity is needed to carry the load during the hours when it is unprofitable to run the generators. The price of the necessary battery having been obtained the fixed charge against the battery investment can be conservatively estimated at about 15 per cent, which includes maintenance, interest, insurance, and taxes. If the revenue obtainable from the load to be delivered by the battery exceeds by any appreciable amount this fixed charge, it will usually be found that the battery is a paying investment. The cost to charge the battery is practically nothing, due to the fact that the battery charging current, by increasing the load-factor on the generating apparatus, increases its economy to such an extent that the saving in the cost per kilowatt-hour for the current generated will nearly offset the cost of the power charged into the battery.

If sufficient revenue cannot be obtained at the start, from the load to be delivered from the battery, to pay for the fixed charges against the battery, it may pay to put in the battery to build up the load.

No extra labor is required for the battery installation, and usually a saving in labor can be effected by the battery.

In small plants no extra building for the battery is usually required, as the battery can be placed in a corner of the power-house.

While many more cases might be cited where storage batteries are proving a good investment in this service, the cases chosen are typical of what is being done and demonstrate the advantages to be obtained by their use.

Vermont State Convention.

It is announced that the 11th Annual Meeting of the Vermont Electrical Association will be held at Rutland, Vermont, September 12th and 13th.



A New Use for Electric Irons

By C. S. EMMERT

Commercial Dept. The Colorado Springs Light, Heat and Power Co., Colorado Springs, Colo.

We have discovered a new use for electric irons that will be of use to various central station commercial departments.

In a conversation with our local Fire Chief he mentioned the fact that he had to discontinue the use of steam coils on the floor of his wagon room for heating the radiator and engine of his fire trucks because the heat dried out the wood in the artillery wheels. An electric iron was suggested as a means of heating his cooling water; this iron to be clamped on the inside of the radiator, the object being to keep the water sufficiently hot so that the engine starts on the first compression. As a result, he bought irons for every truck in the Fire Department, besides for use on his own car. They are giving the very best of satisfaction.

Electricity In An Illinois Dairy

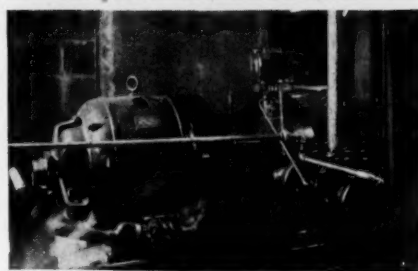
An Illustration of the Practical Utility and Economy that Central Station Service Offers the Farmer.

By GUY R. GROVE

Public Service Company of Northern Illinois, Kankakee, Ill.



LARGE and small central station companies have been extending their power lines into the rural districts, during the past few years, just as the telephone companies have been extending their service. This system of distributing electricity for rural power and light is supplying a much needed want and is receiving a hearty welcome by the farmers who have several places where they can put it to work to good advantage.



Picture 1. The milking machine and the motor that drives it. It also compresses air for the water system.

A trip through the farming country about Chicago and especially in the dairying communities will show today hundreds of farms fully equipped to utilize all that electricity can do for them, while five years ago scarcely a dozen such equipments could be found. This alone shows its rapid growth.

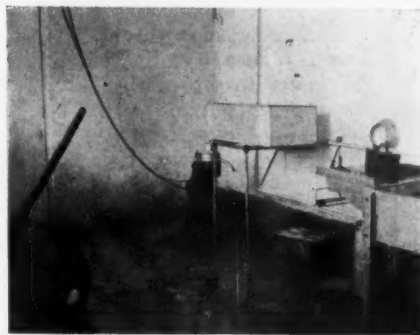
A model installation of this kind is a dairy farm 50 miles west of Chicago, and on the outskirts of the village of Crystal Lake, where milking, cream separating, feed grinding, and many other tasks are performed by electricity. Picture No. 1 shows the principal motor, geared to a vacuum pump which operates the milking machines. When not in use for this purpose, the pump is converted to an air compressor which operates a domestic water system.

This pump is connected to a steel tank by suitable pipes, from which the air is exhausted to as near a vacuum state as possible. From this tank run pipe lines which extend around the cow stable, at a height of about five feet from the floor. The milking machines are connected to the pipes by means of suitable rubber hose attachments as shown in the upper view where the cow is being milked. The machines have two milking attachments, for serving two cows at one time, but only one is shown here in operation, in order to get a better view of the attachment. As the pipes and rubber hose are air tight, the vacuum creates a

suction through the hose and pipes with a pull towards the pump, drawing the milk from the cow and through the hose into the large can where it is trapped by suitable valves. The stall machine has a mechanism placed on the top of the can which makes the suction action intermittent and alternating between the two attachments.

As soon as the cans are filled, the milk is emptied into a vessel and carried to the separating room where it is run through a separator, which is belted to a small motor located on a beam on the ceiling, as shown in Picture 2. Ninety cows are milked on this farm by three machines, and two men are required to keep the cans empty and to change the machines from one cow to another, the time required for milking two cows and changing the machine being about 6 minutes. To milk the 90 cows takes from 1 1/2 to 2 hours. Previous to the use of this equipment, however, five men were required for doing the same work and they worked three hours at each milking. Thus, two men can now do the work in two hours which formerly required five men and three hours, a saving of 22 actual working hours per day. The amount of electrical energy used per day averages 6 kwh. and at 7 cents per kwh., the rate paid here, the cost per day is 42 cents. Another feature recommending this system of milking is that it is more sanitary. The milk is never touched by human hands.

On this farm, electric current is also used in grinding all the feed and preparing it for the cattle. This is done by means of a small feed grinder which is driven by a 10 hp. motor, mounted on the truck shown in Picture 3. Approximately 500 bushels of grain are ground each month for feed and a very considerable saving is effected. It is stored and ground in the granary, which is located on the second floor directly above the cow and horse stables. Actual tests here show that an average of 6 kwh. is required for grinding a bushel of grain at an average cost per kwh. of about 7 cents, figured on the maximum demand system and a 10 cent, 5 cent, and 3-cent rate. This



Picture 2. The cream separator is driven by a motor on the ceiling.

means an expense of 4.2 cents per bushel or a monthly cost of \$21 for power. The feed grinders have a capacity of 20 bushels per hour and for 500 bushels would require 25 hours labor at 20 cents per hour, or \$5. The total cost would be \$26 for power and labor.

The cost of grinding a bushel of grain at the local mills, however, is 4 cents per bushel. The estimated cost of hauling this amount of grain to the feed mills, which are located 5 miles away, including the time required for loading and unloading it, is \$30. Here is a total cost, therefore, of \$50 by the old method and a net saving of \$24 per month to the farmer by the use of electricity at home. The Picture No. 3 shows the feed grinder located near the door in the granary and a portable 10 hp. single-phase Wagner motor mounted on a truck and driving the feeder by a belt. This arrangement is the practical idea of an up-to-date farmer,



Picture 3. The portable general-work motor and the feed grinder, which it operates through an upstairs window.

enabling him to use the motor at several places and for different purposes with the initial cost of only one motor.

All the farm buildings here are well lighted with electric lamps, which is convenient and does away with the danger of carrying lighted oil lanterns around cattle at night. The service is single phase, 110 volts for lighting and 220 for the motors. The pressure is stepped down to 2200 volts at the transmission line and again to 110-220 at the different farms along the branch circuit.

This farm is served from the high tension transmission lines of the Public Service Company of Northern Illinois, passing about one mile from the farm. This company serves practically all the farmers in this community either directly off the transmission line or by branch "farmer circuits." No trouble was experienced in getting the farmers in this community on the lines as they were all well-to-do and up-to-date and knew the advantages of electrical service for their use. While the majority of these farmers are heavy users and consequently good paying consumers, there are several smaller farmers who use the current only for lighting and for running a small pump.

Report of the Rate Research Committee N. E. L. A.*

COMMITTEE: E. W. LLOYD, Chairman; L. H. CONKLIN, S. E. DOANE, R. S. HALE, A. T. HUEY, J. D. LYON, R. A. PHILIP, W. H. WINSLOW, W. J. NORTON, Secretary.

The report of the Rate Research Committee presented before the Seattle Convention is a very complete exposition of present rate conditions and offers a variety of recommendations, which after a review of the year's work, are set forth in the following conclusions:

General

The great necessity of adopting as rapidly as possible, uniform methods of charging for central-station service has already been pointed out. It is not alone sufficient that some general policy of rate making be recognized by the several companies, but it is very desirable that the actual form in which the rates are placed before the public should be as nearly alike as possible.

The Committee believes that retail rates quoted in schedules may be gross rates, subject to a moderate cash discount for payment within fifteen days or less from date of bill. Giving half the cash discount during the succeeding ten days has been adopted by some companies and found to expedite collections and promote friendly relations with the consumer.

The question often arises whether it is better to have, say a 20-cent rate with a 2-cent allowance for prompt payment, or an 18-cent rate with a 2-cent penalty for slow payment. The latter has an apparent advantage in that the list price is lower, but the former has the advantage of being more popular with customers, and we recommend it since there is no reason why the net price, rather than the list price, should not be used for all advertising purposes, as, for instance: "The electric company has reduced its net rate on bills paid within fifteen days to . . . cents per kilowatt-hour."

Customers of Large Size

The Committee agrees unanimously in recommending that all large customers be charged on a schedule making separate and distinct demand and energy charges. The unit charges per kilowatt of annual maximum demand and per kilowatt-hour consumed may be made to decrease respectively with an increase in the number of units of annual maximum demand, and the number of units of energy consumed monthly, according to a block system, applying to both the demand and energy charges. By allowing the unit charges to decrease in this way the equivalent of a customer charge is worked into the rate schedule.

Feature Rates

The Committee believes that for storage battery charging, for refrigeration, and for other similar classes of business still lower rates can properly be made, for which separate schedules may be desirable.

Lamp Renewals

The Committee believes that it is for the best interest of central stations and the public that the rate for electricity should be such as to permit the free renewal of standard lamps and the offering of other lamps at such low prices as to prevent dealers from competing with inferior lamps; or, if this policy is not adopted, the offering of lamps only at such prices as to encourage dealers to compete with a good quality of lamp.

Minima

There should be an appropriate minimum

*Abstract of paper read before the National Electric Light Association in convention at Seattle.

charge per customer. There should be a minimum charge per kilowatt for auxiliary or break-down service. There should be a guarantee of income in contracts which require extensions to plant or lines and which might otherwise be unprofitable.

Subject to these minima, the company should have for ordinary conditions a maximum rate per kilowatt-hour.

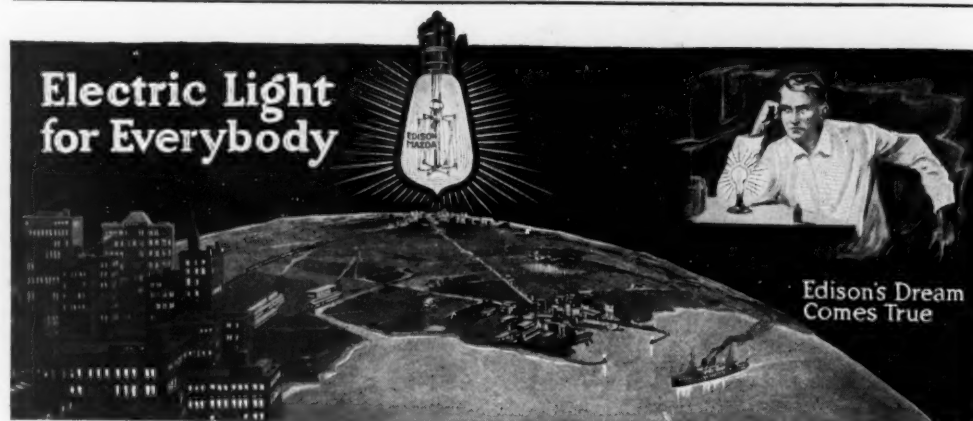
Modification Necessary for Small Consumers

Differences of opinion exist in regard to the modifications that should be introduced when the size of the customer to whom the demand rate for large customers applies decreases to a certain limit, the value of which is also open to discussion. The line of demarcation between large and small consumers should be drawn somewhere between \$50 and \$200 per month for light, and somewhere between \$10 and \$100 per month for power. ****

Modification—Using a Single Rate for Small Consumers

On the one hand, all customers less than a certain size may be averaged in one large

group regardless of load-factor, and a kilowatt-hour rate applied to all alike, the only differential recognized being one based entirely upon the quantity of energy used. This method of treatment leads to the adoption of a block rate embodying kilowatt-hour charges only for all consumers not previously considered as large customers. The reduction in kilowatt-hour rate to customers using fairly large quantities of energy has the effect of introducing into their bills the equivalent of a customer charge. The general level of the kilowatt-hour charges in this rate would, of course, be higher than in the case of the rate for large consumers, in order to cover the demand and customer charges involved in rendering service to the average small consumer. This rate should carry with it a suitable form of minimum. The first step in such a block rate could include so many kilowatt-hours that the average residential consumer would receive his entire energy-supply at a straight-line meter rate, thus presenting to him an extremely simple rate and one that he can readily understand. As this rate gives to all small consumers, both residential and



Everywhere

Electric light for all the world—in city, village and country, on land and sea—this is Edison's dream come true.

Electric light for *everybody* is made possible by the long-lasting economy of the

Edison Mazda Lamp

Ten cents today buys as much electric light as a dollar did twenty-five years ago.

Inventors, manufacturers and lighting companies have continuously improved, not only the lamps that give the light, but also the service that makes electric light universal.

Why it is Cheaper

All this progress, crowned with the Edison Mazda Lamp itself, brings electric light within the reach of every business and every home.

This new lamp is twice as economical as the best electric lamps previously in common use.

Join the millions using these



lamps, that give so much light for so little money. No store or home is too small to have electric light.

And electric wiring is now so simplified that you can install electricity at surprisingly low cost and with little disturbance.

New Lamps in Old Fixtures

If you are still using old style electric lamps, put Edison Mazdas in the same sockets—and compare results.

Ask any lighting company or electrical dealer about modern house-wiring and the best styles and sizes of Edison Mazda Lamps for your special needs. Do this today.



This Symbol on all Edison Mazda packages

General Electric Company

Largest Electrical Manufacturer in the World

Sales Offices in all large cities

3764

Lamp Agencies Everywhere



The Guarantee of Excellence on Goods Electrical

commercial, a charge based entirely on a quantity of energy consumed each month larger than the average residential customer is likely to use, it does not offer him a very great incentive to adopt any of the electrical devices which add so greatly to the convenience and utility of electric service.

Modification—Using a Two-Charge Rate for Small Consumers

The desirability of more strongly encouraging long-hour use of service has led, on the other hand, to the recognition of a rate which will give even the smallest consumer the advantage of a decreasing unit-charge for energy with increasing load-factor. To accomplish this a two-charge system which recognizes the demand and the energy consumption as independent elements in the cost of service is required, as in the case of the large consumer. Under such a system the small customer receives a like benefit of long-hour use of his service, even where the quantity of energy consumed would of itself not warrant a reduction in his unit-charge under the block kilowatt-hour rate.

Form of Two-Charge Rate for Small Commercial Consumers

In order that a customer may receive some benefit from the long-hour use of his service, a differential rate must be established involving the elements of both demand and energy consumption. * * * * It is believed that even the smallest commercial installation would accept a rate, making separate demand and energy charges without question, and as such a rate is the simplest form of a two-charge rate it is recommended for adoption wherever possible.

Demand Element in Two-Charge Rate for Small Consumers

While it is believed by many that the actual measured electrical demand of the small consumer is the theoretically correct demand basis of a two-charge rate, and that it will ultimately prove to be the general basis used, there are certain reasons why such an electrical basis of demand rating cannot be adopted exclusively for commercial use at the present time.

First.—There is at the present moment no reliable device on the market for measuring electrical demand generally at a cost sufficiently low to admit of its application to consumers of small size.

Second.—In residential service, the lighting demand constitutes at present the greatest average demand, but it by no means represents the greatest individual maximum demand, taking into account the use of heating and cooking devices and other power applications. However, the diversity-factor applying to the use of such apparatus is so great at present that it is not deemed wise to adjust the demand charges, properly determined by the lighting load, on a basis which would at this time include other applications of service. When these other applications become of more than incidental importance in affecting the demand of any individual group of customers, they should properly be considered in establishing the electrical demand as a basis for rates. Until that time arrives the fact that the heating and cooking devices are used on the customer's lighting circuits makes it impracticable to separately measure or control the lighting demand without also bringing the heating and cooking demand into consideration, which, as just pointed out, is not a desirable thing to do at present.

Form of Two-Charge Rate for Residential Consumers

In the case of residential service, it is not considered advisable to attempt to make separate and distinct demand and energy charges, for, to the residential consumer, whose use of service may vary greatly from month to month, a fixed monthly demand or "service charge," as he regards it, appears very burdensome and unjust. In order to overcome this objectionable feature it is recommended that a rate involving the use of a certain amount of energy, as explained later, at a primary rate per kilowatt-hour each month before a lower secondary rate applies, and embodying a suitable minimum, be adopted for residential service.

Two-Charge Rate for Residential Consumers

Under the form of a two-charge rate recommended for residence business, the customer pays for a certain number of kilowatt-hours consumed each month at a primary rate, and for all kilowatt-hours in excess of this quantity at a lower or secondary rate. In some cases a still lower tertiary rate is applied to all energy consumed in excess of the amount required at a primary and secondary rate. The number of kilowatt-hours that must be consumed at each higher rate before the next lower rate applies ordinarily depends upon the customer's demand. By making the number of units to be used at the primary rate equal to a constant plus some function of the consumer's demand, or by decreasing the number of hours' use of demand at the primary rate as the demand increases, the equivalent of a customer charge is embodied in the schedule. The action of this rate is obvious. The fixed charges are covered by the difference between the low final rate and the primary rate which applies to the predetermined quantity of energy used at the primary rate.

Minimum Demand in Two-Charge Rate Small Consumers

While the demand for small consumers should be based primarily on electrical demand, there are excellent reasons for establishing certain minimum values of demand for these consumers, depending, in

Edison Lamps

"Electric Light for Everybody"

That's the keynote of the Edison Mazda Lamp Campaign that begins this month in over six million copies of many nationally-read magazines.

The "Everywhere" advertisement on the facing page is the first of a series that will reach again and again all present and possible users of electric service in the United States.

Read it.

Your profit from this national advertising can be doubled by means of local selling campaigns started now.

The national campaign begins in the following:

Saturday Evening Post—September 7
Literary Digest —September 7
Outlook —September 7
Scientific American —September 14
Collier's Weekly —September 28

Everybody's —September
Munsey's —September
Independent —September
System —September
Popular Electricity —September

Semi-Monthly Magazine Section (September 22) of:

Boston Globe
Washington Post
Cincinnati Enquirer
Chicago Tribune

Philadelphia North American
Pittsburg Despatch
St. Louis Globe Democrat
San Francisco Call

General Electric Company

Largest Electrical Manufacturer in the World

Edison Lamp Department:

Harrison, N. J.

3770

The Guarantee of
Excellence



on Goods
Electrical



Be Ready—Meet the Wave of Demand

for

NATIONAL QUALITY MAZDA LAMPS

set in motion by our business-creating advertising campaign which will reach millions of present and prospective electric light users through the popular magazines. If you meet this wave as it combs the beach you can roll away easily on top—to your profit.

September 12, 1912, initiates the campaign. The above full page will appear in this issue of the SATURDAY EVENING POST. Make this advertising your advertising so far as your city is concerned. Link your fall and winter campaign with this prominent publicity and you can secure a large share of the benefits to be derived therefrom.

Remember that to discriminating lamp buyers "National Quality" is synonymous with "lamp perfection." Give your customers any brand of National Quality lamps and never apologize for inferior lamp quality.

If you want more booklets, more advertising cuts, more advertising help write or wire to any of the following works which comprise the



Cleveland.
SIXTH CITY.

Banner Electric Works,
Youngstown, Ohio
Brilliant Electric Works,
Cleveland, Ohio
Bryan-Marsh Electric Works,
Central Falls, R. I.
Chicago, Ill.
The Buckeye Electric Works,
Cleveland, Ohio
Colonial Electric Works,
Warren, Ohio

The Columbia Inc. Lamp Works, St. Louis, Mo.
Federal Miniature Lamp Works, Cleveland, Ohio
The Fostoria Inc. Lamp Works, Fostoria, Ohio
General Inc. Lamp Works, Cleveland, Ohio
Munder Electric Works, Central Falls, R. I.
Chicago, Ill.
Packard Lamp Works, Warren, Ohio
The Peerless Lamp Works, Warren, Ohio
Shelby Lamp Works, Shelby, Ohio
The Sterling Electric Lamp Works, Warren, Ohio
Sunbeam Inc. Lamp Works, Chicago, Ill.
New York City

the case of commercial service, on the connected load, and, in residential service, on the floor area or number of rooms. It is the understanding that in ordinary cases the demand as established by this minimum will be used in place of the measured electrical demand, thus not only saving a great deal of expense by eliminating measurement of the demand of the small customer, but at the same time assuring the station a minimum return from the small consumer which is to some degree fixed by the value of the service to him.

Lamp Efficiency and Minimum Demand

A very important reason for establishing a minimum demand to apply to the small customer served on a two-charge system is involved with the efficiency with which energy is utilized in lighting. The efficiency of light production is unsettled, not only because changes are now being generally made by customers to the more efficient types of incandescent lamp, but also because lamps of lower wattage and higher efficiencies seem inevitable. Until the probable limit of development can be more fully predicted, or until the growth of other applications of service makes the lighting demand of incidental importance, the central-station's fixed service and demand charges must be protected by the rate schedule. It is obvious that the fixed charges of central stations would be reduced by any general and sudden decrease in the present electrical demand, which would simply leave a portion of the generating equipment idle, and as such a general reduction is at least not beyond the bounds of probability as long as the lighting service retains its present importance, and the incandescent lamp seems capable of so much further improvement. It is advisable to provide a minimum below which the electrical demand shall not fall in the case of each consumer, such minimum being based on some approximate measure of the value of his lighting service. For residential customers, this general idea finds expression in rates involving the use of floor area or active rooms, as in Detroit, Milwaukee, St. Louis, and Toronto.

Rate for Very Small Consumers

In certain sections of the country local conditions indicate the necessity of providing an extremely cheap and simple method of serving consumers of very small size. Consumers whose maximum demand would fall between 100 and 300 watts could probably be charged on a pure demand rate, the demand being controlled by some form of current limiting device, several types of which are on the market. The customer under such a rate pays a fixed monthly charge per watt of maximum demand for which his controller is set. Theoretically, the unit demand-charge should decrease with the size of the customer, in order to provide the equivalent of a customer charge (as in the rates for large users), but practically it is hardly necessary to go into such detail. Under such a rate the customer's bill is the same from month to month, which meets with his approval, the billing is simplified, and the periodic reading of meters as well as a large part of the meter expense is eliminated.

Desirability of Having Controlled Flat Rate for Very Small Customers

A demand rate for the very small consumer will generally serve to introduce electric service where it would otherwise remain unknown, and as the consumer grows in size or wishes to take advantage of heating

and cooking devices he will naturally be transferred to rates that permit of their use. It must be distinctly remembered that, while there may be many localities where the need of such a rate is not felt, in many others it would prove profitable. The Committee, in attempting to make its report of widest and most general use, has of necessity adopted several view-points and endeavored to recommend as few rates as possible to cover the fundamentally different local conditions which it recognizes as existing.

The report closes with the submission of a complete schedule of rate and contract forms and the committee urgently recommends their uniform adoption by the central station industry.

New Control in Minneapolis

H. M. Bylesby and Company Assume Management of the Minneapolis General Electric Company

H. M. Bylesby & Company, of Chicago, have assumed active management of the Minneapolis General Electric Company, purchased from Stone & Webster some time ago. Gen. George H. Harries, for some time president of the Louisville Gas Company, and vice-president of the Consumers Power Company, and of the Minneapolis General Electric Company, has general supervision over the property. Mr. Samuel Kahn took charge as Acting Manager to serve temporarily or until a permanent manager is appointed.

It is announced that the company will proceed to develop 35,000 hydro-electric power on the St. Croix River above the present 20,000 hp. development at Taylor's Falls. The company contemplates further water power development on the Mississippi River amounting to approximately 80,000 hp. which would give a total of not less than 160,000 hydro-electric horsepower, including several smaller developments, available to Minneapolis and St. Paul and vicinity. The properties at Minneapolis and St. Paul will be connected by transmission lines and the water powers of the Consumers Power Company at Cannon Falls and Mankato also will be tied in by a transmission line running south from St. Paul. Minneapolis will be headquarters of the Consumers Power Company.

The Minneapolis General Electric Company, under Stone & Webster's management, has been known as a splendidly constructed and progressively managed central station company. In January, 1912, the company had 16,245 customers with a total connected load of 62,245 hp. There were 429 employees. Business and plant have had great expansion during the past seven years. At the present time the company has installed 22,500 hydro-electric hp. and 16,500 steam hp., the latter being in a recently constructed station of the most modern and efficient design. Five thousand additional hydro-electric horsepower will be added to the present development at Taylor's Falls. In spite of the great increase in business during the past few years much additional service can be marketed within a short time. The 1910 census gave Minneapolis a population of 301,408.

An Interesting Year in Emporia

By CHAS. A. BERGEN

Manager New Business, Emporia Railway & Light Co., Emporia, Kansas



On April, 1912, the electric lighting plant in this city was taken over by the Albert Emanuel Company of Dayton, Ohio. It was formerly operated by the municipality and on account of extensive improvements being needed, both in the power plant and in the overhead wiring, an election was called and the voters decided to turn it over to the Emanuel Company in consideration of their building a street railway system and improving the service.



Chas. A. Bergen

On July 13th work was started on the street railway, on the 27th of October the line was opened to the public.

The opening of the street railway was attended by many pleasing incidents as the business men of the city showed their good will by aiding in every possible way to make it a success. The new offices and sales room of the company were opened the same day and thousands of visitors were shown the advantages of the service and the use of electric appliances. Representatives of the Westinghouse and General Electric companies from the Kansas City offices were on hand to help in the demonstration and the local electrical contractors had displays of electrical merchandise. The electric range was the center of attraction and roast meat, toast, cake, and coffee

were served to everybody. The best orchestra that could be procured was on hand night and day and furnished music for the occasion. The office and sales room was filled at all times with interested visitors. No attempt was made to effect sales, although there were quite a number, but the whole object of the demonstration was to educate the people into the uses of electricity.

When the plant was taken over by the Company the business streets were lighted with arc lamps and electric signs were few and far between. With the co-operation of the merchants we succeeded in installing a "white way" illumination of ornamental poles that covers the seven most important business blocks in the city. The poles were spaced seventy feet apart with two series lamps on each pole. A number of lamp letter signs were erected by merchants and the result is that the streets have assumed a metropolitan air, and are crowded with people during the evening.

On February the 12th the company inaugurated a vigorous house-wiring campaign, and their efforts were rewarded by installing electric wiring in one hundred and ten houses in a period of seventy-four working days. The average cost per contract, including all advertising, salaries, etc., was five dollars and fourteen cents (\$5.14). Numerous current-consuming devices were sold during the campaign, including 84 electric flatirons, three motors, nine toaster stoves, besides a large number of lamps and other devices.

Every employee of the company, no matter what his position, has been intensely loyal and the spirit of co-operation has been developed in every man. A large lamp letter sign was erected over the main street reading "Emporia is the Place," and every Emporian is ready at all times to convince everyone that it is "The Place," as Emporia is a city of contented, progressive people and solid as the rock of Gibraltar financially. The motto of the Emporia Railway & Light Company is that "A public service corporation is a servant of the people and its greatest asset is the good will of its patrons," and the friendliness shown by every resident indicates that a square deal brings the

EMPORIA RAILWAY & LIGHT CO.,

504 Commercial Street Telephone 99

May 1912

Month of May, 1912

Bring this Statement with you; it will be your Receipt when paid.

Present Reading kw

Former Reading kw

Amount Used kw @ c

Less Discount 10 per cent.,

Discount allowed only if Paid on or before the 10th. If not paid by the 15th, service will be shut off. No discount allowed on Minimum Bills.

Delinquency -

Minimum Bill

Total -

Cust. No

Gross

Discount

Net

Delinquent

Total

Tests of 7313 electric meters, according to reports filed with the New York Public Service Commission, showed 463 or 6.23% were fast; 5945 or 81.29% were accurate and 905 or 12.38% were slow.

On each monthly bill card the space at the foot is devoted to some telling statement

largest dividends. William Allen White's paper, *The Emporia Gazette*, in the following editorial, comments on the rules and policy that governs our organization:

"Gentle reader, did you happen to read the advertisement of the Emporia Railway

and Light Company, to be thoughtful, considerate, and courteous, the people themselves meet consideration with respect and kindness with kindness, we won't get far even with those rules.

"It will pay Emporia people, as well as the Emporia Railway & Light Company, to be thoughtful, considerate, and courteous,

month some little advertisement or short message that we wish to send our customers. It costs practically nothing in the extra printing and is always read. It is effective, as is shown in the reproduction.

We have shown in our year's work that the golden rule is good business policy.

DO NOT WAIT

SPECIAL

90 DAYS ONLY

Low Cost House Wiring Proposition

WE WILL TAKE YOUR CONTRACT

We have engaged A. E. Gilman, M. W. Schotter and The Emporia Plumbing Company to do our work. You may choose any of the above firms to do your work.

PLAN A.
5 Rooms With Drop-Cords
\$13.00

PLAN B.
5 Rooms With Drop-Cords and Pouch Lights with Switch
\$17.00

PLAN C.
5 Rooms With 1 Drop-Cord and Two 24-Inch Pouches, Pouch Light and switch
\$21.80

OTHERS EQUALLY ATTRACTIVE

TERMS: One-Fourth With Contract and Balance in Six Monthly Payments. All work to be inspected by this company's inspector.

SPECIAL: A six-pound Electric Iron will be given Free with the first ten contracts signed, beginning Monday morning, February 12. Phone 99 for our representative.

The Emporia Railway and Light Co.

STARTS FEBRUARY 12

This ad shows how the house-wiring campaign was handled

& Light Company in Saturday night's paper—the one headed, "An Enduring Courtesy." Well, there is the spirit of the times. Did you notice that it led off boldly with the golden rule? Did you ever get it firmly into your noodle that the golden rule you have sometimes sneered at as impractical, is the only rule that in the long run will work? The Emporia Railway & Light Company is starting right in Emporia. It is not only well enough, but is necessary to business success for business people to be polite and courteous. The new company in Emporia has put in a good street car

not only to the car company's people, but to every one, high or low, rich or poor."

We have done nothing particularly spectacular in our Emporia campaign but we have left few of the business-winning stones unturned. With every new meter connection we send out an iron on trial. These irons are sold for \$4 cash or \$4.50 on distributed payments of 50 cents added to each lighting bill for nine months. By the use of circular letters with return post cards we made this trial offer productive of much business. One letter to consumers who had not utilized the equivalent of their minimum charge sold 43 irons in the 16 days following the mailing. At the bottom of our monthly statement card we run each

Electric Trucks as Strikebreakers.

In London, England, where it is said traffic changes move so slowly as to almost defy detection by the onlooker, they have found a new and important use for motor trucks—the breaking of a serious strike. The horse drivers of London struck and everything indicated that the move would cause a tie-up rivaling that of the railway strike in disastrous consequences to business.

But the strikers failed to take one thing into consideration, the difficulty of "peacefully" stopping a loaded power truck moving at ten to fifteen miles per hour. And it so happened that motor trucks, or as they say across the water, "motor vans," were the one stumbling-block in the way of the strikers' success.

An official of the General Motors Truck Company, now abroad, writes that the strike has opened the eyes of English business men in more ways than one to the advantages of the commercial automobile. Not only was it demonstrated that the power wagon is capable of work that teams cannot possibly accomplish, but it is contended by eminent English authorities that the cost per mile for hauling goods was actually cut in two.

Another interesting revelation to English business men was the capability of the strike-breaking trucks to work under pressure. Part of the trucks were in service twenty-four hours a day, and it was also noted in many instances that the power wagons made several trips in one day over routes on which horse-haulage had never attempted more than one.



Emporia's White Way and Slogan Sign—"Emporia is the Place"

track, but that is the smallest part of its equipment for success. The big thing needed by that company and by every company is politeness—courtesy—the everyday application of the good old golden rule in business. The rules printed Saturday night in the *Gazette*, if lived up to are a sufficient franchise for any company in any town; they would make a working agreement between the town and the company without any other restrictions or qualifications.

"However, the people of Emporia should remember this: It takes two to be polite. The car company's employees may try to be as smiling as a basket of chips, but unless

NATIONAL QUALITY



UP-TO-THE-MINUTE SERVICE

Colonial Electric Works

of General Electric Company
Warren, Ohio

A Successful Electric Flatiron Campaign

By C. J. EATON,
Union Electric Company

We took 97 six-pound electric irons recently with two live men to demonstrate them, and called on non-users, a list of which was prepared beforehand. Monday afternoon and Tuesday was selected as the most desirable time to canvass, and it was also essential that the days be hot. In 90 per cent of the cases we found the housewife or maid was ironing, and with great discomfiture. Our demonstrator asked permission to show the electric iron, and was in no case refused. During the course of conversation the electric iron was connected and heated, after which the lady was requested to discontinue the use of her old sadiron, all of which made a deep impression.

During this campaign, it was found that many erroneous ideas existed regarding the use of electric light and electrically heated appliances. Many thought they couldn't get heat without flame, that electric irons must be charged so that a shock could result from touch, and many were afraid of lighting; all of these fears were quickly dispelled by the demonstrator. It was made clear to us, however, that in order to truthfully demonstrate electrically heated appliances a personal demonstration is necessary. A few return calls brought forth nothing but praise for the electric iron, accompanied by expression of happiness and comfort, valuable assets to the central station.

A day and a half of work resulted in 97 calls made and 57 irons sold, and it must be admitted that this campaign will result in many new electric lighting and flatiron customers, for the back fence gossip from satisfied customers will spread the news like wildfire.

I might add that 80 per cent of our residence customers now use electric flatirons. Who can do better?

Some Facts From Tokyo.

The total daily consumption of gas in the city of Tokyo, Japan, is about 5,878,000 cubic feet, of which 2,076,000 are consumed for lighting purposes. The number of customers is 209,600, representing nearly half of the buildings in the city. There are 515,280 gas lights used for indoor or house purposes and 3,900 street lights.

The number of electric consumers is somewhat less than for gas. The Tokyo Electric Light Company has 169,580 consumers using 640,900 incandescent lamps and 397 arc lamps, a total load of 18,300 kilowatts. The City Electric Department has 34,300 consumers using 104,300 incandescent lamps.

The Nipon Lamp Light Company and the Tokyo Lamp Lighting Company—supplying oil and maintaining door, gate, and street lights, have only 106,350 lamps in use—consuming 2,550 gallons of oil per night. About fifteen years ago the consumption of oil per night amounted to about 20,000 gallons.

Thirty-nine per cent of the entire population of Tokyo are gas consumers—and thirty one per cent are electric consumers.



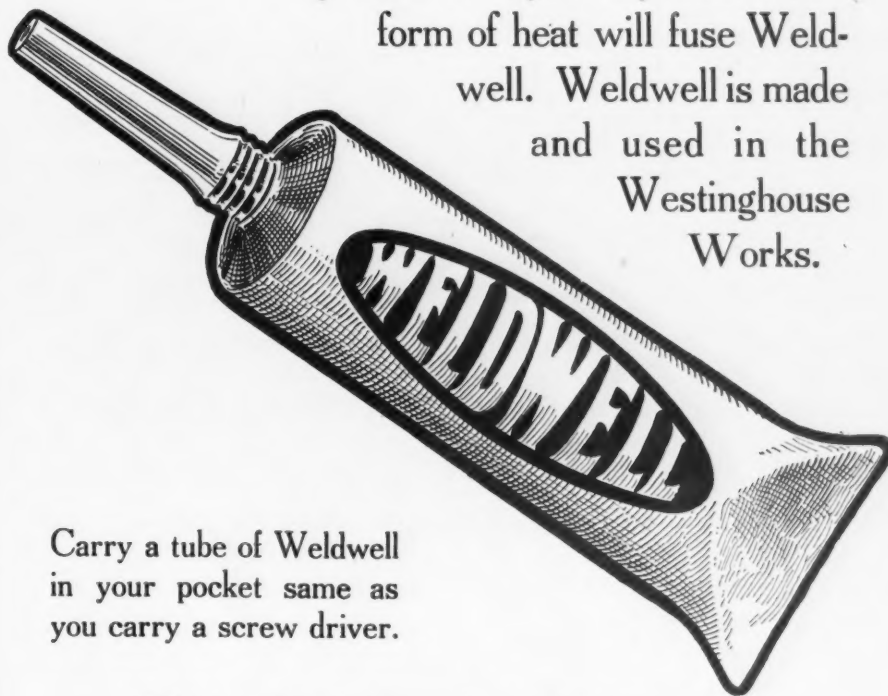
Westinghouse Quality in Tube Solder

WELDWELL

The new handy solder for Electricians, Linemen, Mechanics—everybody who uses solder.

WELDWELL is always ready for use. Weldwell gives the same results as old fashioned solder. Weldwell is more economical than old fashioned solder because it saves valuable time.

Weldwell cleans without the aid of acid. Weldwell adheres readily wherever placed. Weldwell does not injure insulation. Weldwell spreads evenly. Any convenient form of heat will fuse Weldwell. Weldwell is made and used in the Westinghouse Works.



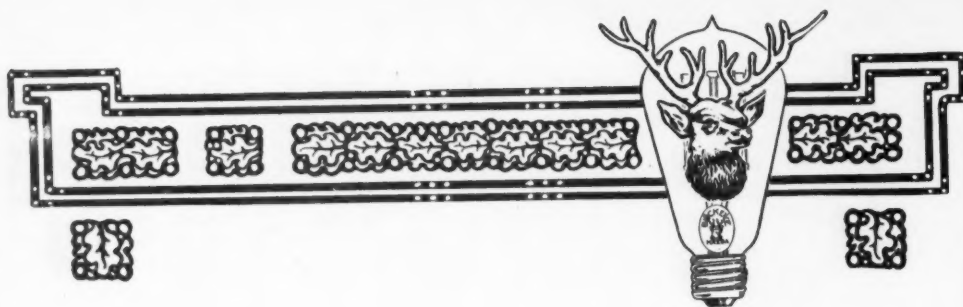
Carry a tube of Weldwell in your pocket same as you carry a screw driver.

Sold by electrical supply dealers everywhere.

Large tubes 40c. Small tubes 15c.

Westinghouse Electric and Mfg. Co.

East Pittsburgh, Pa.



Some lamp makers spend a barrel of money to untangle errors. We spend as much to avoid 'em. The difference is this: in the first case, the customer is the goat, while the man who buys

BUCKEYE "HEAVY DUTY" LAMPS

is protected. When a cornice falls and cracks your head, it's small satisfaction to hear the building owner say: "Sew him up, Doc, I'll pay your bill." You had rather he had hired someone to fasten the cornice. Same way with lamp service. You don't want reparation; you want protection. Buckeye service is automatically error-proof.



The Buckeye Electric Works
OF GENERAL ELECTRIC CO.
CLEVELAND
CHICAGO PITTSBURGH BOSTON
H. E. Wells, Agent, Dallas, Texas



The Gasoline Plant as a Lighting Competitor

BY PRESNON D. GARDNER,
Public Service Electric Company, Newark, N. J.

The gasoline plant is an outcome of the high cost of electricity to long-hour consumers, such as saloons and drug stores, especially where carbon filament lamps have been in service. Any company with commercial customers using these lamps and whose bills average over \$10 per month had better stir itself for, with gasoline at 12 cents per gallon, a six to eight-light plant can be run from four to five hours per night for about the same cost per month as electricity and develop from twelve to eighteen hundred candle power against the four or five hundred candle power of the electric bulbs.

There are arguments "pro" and "con." The gasoline plant manufacturers claim that through the use of their systems cheaper light can be procured. We grant them that, but really how much cheaper is it? Statistics taken from drug stores, art stores, saloons, and dry goods stores, using 8 to 37 burners per installation, in service ranging from 42 to 400 hours per month, give an average cost of maintenance per lamp hour of .3347 cents. This is with gasoline at twelve cents per gallon, as against 2 1-2 cents for an equivalent candle power of electricity if Mazda lamps are used. Note, however, that most gasoline plant manufacturers, in their prospectuses, figure on gasoline at 6 cents per gallon and electricity at 3-4 cents per 16 candle power lamp hour, thereby making electricity cost over fifty times as much as gasoline. Note further that if depreciation at 20 per cent and interest at 6 per cent is figured in, as it should be, the cost per lamp hour goes up to .6405 cents, for which amount of expenditure we can furnish—at 10 cents per kw. hour—fifty candle power, or about 1-4 as much light as the gasoline burner.

But we can go one step nearer. Owing to the intense heat of the gas mantle no efficient reflector can be used, for fear of cracking it, whereas with the Mazda lamp, globes and prismatic glass reflectors may be employed and the light directed where it is most needed. In other words, an efficient Mazda installation, for a given total candle power, does not cost more than 75 to 100 per cent more than gasoline.

Against this extra 75 or 100 per cent you have several good arguments to put forth:

1. Electricity is perfectly clean while gasoline gives off an oily vapor that, in time, ruins paint and varnish and necessitates frequent redecorating.
2. Insurance rates are increased in most localities.
3. The majority of landlords are opposed to it because of these two facts and because if it is installed without having a written permission from the insurance company, the policy covering the building in which it is installed is void.

4. The danger attached to the operation of a gasoline plant is considerable. Suppose for example, that the air pressure is used up, causing a light to go out and no one is at hand to turn it off at the burner. Some time later the proprietor wishes light and pumps up the air in the pressure tank, which is generally located in the basement, strikes a match and goes up stairs to light the burner—BANG—for the room was full of highly explosive gasoline gas.

5. The heat from a gasoline burner in summer is almost intolerable as is the smell at any time if all parts are not kept absolutely clean.

6. There is always the possibility that

other cities or even states will follow the lead of New York City and enact fire ordinances that will prohibit the use of these plants, thereby causing a considerable loss to the man who has invested.

7. The time required to keep a gasoline plant in proper condition is worth more to most men than the money saved.

8. In many places where these plants are installed there is too much light and a more pleasing effect can be obtained from less light of a softer variety.

A Complaint Follow-Up

Down in Mobile, Alabama, Mr. T. K. Jackson, Manager of the Mobile Electric Company, has been using this return post card to follow up all complaint cases and find out whether the trouble has been happily corrected. There is more behind

Byllesby Company Buying Pulmotors.

Mr. Arthur S. Huey, Vice-President in Charge of Operation of H. M. Byllesby & Company, has ordered ten more pulmotors for installation at ten Byllesby gas properties. When these oxygen resuscitation machines are installed there will be a total of 21 in use at Byllesby properties, all gas properties being so equipped. The first eleven pulmotors ordered by Mr. Huey were installed at Pueblo, Colo., St. Paul, Minn., Fort Smith, Ark., Mobile, Ala., Muskogee, Okla., Oklahoma City, Okla., Eugene, Ore., San Diego, Calif., Stockton, Calif., Tacoma, Wash., and Louisville, Ky., and have been responsible for the saving of at least three lives, two at Louisville and one at Pueblo. The first case was one of electric shock, the second was gas poisoning, and the third was the case of an infant swallowing morphine



The vacation and hot weather troubles are gone—what have you done to start a fast and profitable campaign for

PEERLESS MOTORS ?

Both D. C. and A. C. Motors to 1 H. P. Inclusive
We make D. C. motors to 30 H. P. designed for any class of service.

The Peerless Electric Co.
Warren, Ohio

No. 2264 MOBILE, ALA. 2/9/12
ON Feb 7th AT 8 PM WE RECEIVED A SERVICE COMPLAINT FROM YOU. WILL YOU KINDLY ADVISE US ON THE ATTACHED POST CARD, WHETHER YOUR COMPLAINT WAS PROMPTLY HANDLED TO YOUR ENTIRE SATISFACTION.

MOBILE ELECTRIC CO.

A COMPLAINT IS NOT A NUISANCE, WE DEEM IT AN OPPORTUNITY FOR THE BETTERING OF OUR SERVICE.

No. 2264 MOBILE ALA. FEB -9 1912-191

MY COMPLAINT OF Feb 7, 8 PM WAS

☒ TAKEN CARE OF TO MY ENTIRE SATISFACTION.

☐ WAS TAKEN CARE OF.

☐ WAS NOT TAKEN CARE OF.

REMARKS: Entirely Satisfactory and answered with remarkable promptness, a good man sent.

SIGNED P. D. Barker, P.M.

Fill in ☐ with cross. Mailing this postal will aid us in rendering better service to you.

This card follows up every complaint in Mobile, and does much good.

this than appears on the surface. When a man complains of unsatisfactory conditions, prompt response may be made and all fault straightened out but the customer may still feel aggrieved. The fact that there was a cause for complaint makes a deeper impression on his mind than the treatment of it by the company. Without realizing it he may remain to a degree prejudiced against the company.

Mr. Jackson doesn't want to take chances of having this man talk, so he sends him this card. If no answer comes he sends a man to inquire if this silence means that the customer has not been entirely satisfied with the treatment received. It works. Cards like the one reproduced here are received constantly, and the consumer is made to appreciate the prompt service of the central station and acknowledge that he is entirely satisfied, that his complaint is withdrawn.

tablets. In all three cases the attending physicians had pronounced the patients beyond aid before the pulmotor was applied.

The new consignment of pulmotors will be delivered to the gas properties at Fairbault, Mankato, and Stillwater, Minn.; Enid and El Reno, Okla.; Fargo and Grand Forks, N. D.; Eureka, Cal.; Marshfield, Ore.; and Everett, Wash. Eventually pulmotors will be installed at all Byllesby properties. In every city the pulmotor is demonstrated before the physicians of the city, and the attention of the public directed to the machine through newspaper articles. Employees of the company are thoroughly instructed in its use and stand ready to respond to calls for the pulmotor day or night. The machines are placed at the disposal of the public without any charge whatever.

-the Bill Raisers



Dark Mornings
Evenings Indoors
Later Bedtime
Back from
Vacations
and others

are coming back!

and with them—"Kicks"

We know, and you know, that the lighting bills increase from natural causes and that the "Bill Raisers" are really necessary comfort-makers,

but your consumers don't know this

We will say to them in a two-color two-page ad in Sept. 28th Saturday Evening Post, "don't blame the meter or the lighting company." We explain to them that the Bill Raisers are serving them—bringing them comforts and conveniences.

Extra Special!

If you want an entirely new plan for putting appliances on your lines ask us for folder No. 309. Address Department BR.

Hotpoint Electric Heating Co.

Succeeding
Pacific Electric Heating Co.

Ontario, California

Chicago — New York
Vancouver — Toronto

To Our Electrical Friends:

WE THANK YOU!

The 1912 Boston Electric Show opens Saturday, September 28, and continues for a Month through October 26. It is an Assured Success—The Fitting Climax of over Two Years of our Best Thought and Hardest Work.

A Large Measure of this Success is due to the Hearty Co-Operation of the "Live Wires" in all the Branches of the Electrical Business. The Great Space has been taken Readily, almost Eagerly, because these People have been Quick to Appreciate the Scope and Importance of the Undertaking.

The Edison Electric Illuminating Company of Boston has assumed the Responsibility for this Big Enterprise because it wished to see a Comprehensive and Inspiring Educational Exhibit Adequately Presented to the nearly Ten Millions of People of New England, and to the Country at Large. This Educational Benefit is Certain to be of Tremendous Importance and of Consequent Commercial Advantage to the Electrical Fraternity as a Whole.

For Making all these Things Possible—And More—
We are Grateful to You for Your Support.

It Remains now for us to Welcome You at the Show.

The 1912 Boston Electric Show

Under the Auspices of

The Edison Electric Illuminating Co. of Boston

ELECTRICAL MERCHANDISE AND SELLING ELECTRICITY

SEPTEMBER, 1912

PATAGONIAN APPLIANCE POLICIES

When a Patagonian wishes to enforce an idea, he bashes his vis-a-vis over the head with a club. Provided he is the bigger man, and lands squarely, the argument ends there. If the other fellow is quick with the side-step and happens upon a handy brick, the discussion, punctuated with Patagonian profanity, may be continued until one or the other is stretched on the turf. The clinching argument is the blow that reaches a vital spot.

Some such practice as this obtains in the electrical industry. When the average central station, in its relationship with the other local electrical interests, decides that something ought to be done in a certain way, it proceeds to enforce the dictum for the simple but sufficient reason that it has the power. If the opposing party has the courage and means, he may sidestep and counter, but the result is apt to be more a matter of might than of right. The clinching argument is always a "ruling." As with the Patagonian, victory always rests with the holder of the club.

The word co-operation has a familiar sound these days and there are increasing evidences that it is beginning to be pretty generally understood. Central station men are looking about for things to do and chances to do them; contractors are listening for the next move and watching to see how deep the workings of the new policy are going to sink their leaven. We wonder how long it will be before it will bring the death of some of the Patagonian appliance policies that are in force in various parts of the country.

Why Patagonian? Well, consider the city where the central station maintains a salesroom and sells all manner of lamps, heating devices, power appliances, and other electrical merchandise—at cost. Of course, in such a city there is no independent electric store; there can't be one. Naturally the local contractors do not give any time or effort to the encouraging of the market for these electric home comforts; having overhead expense to carry, they must stick to the business that pays a profit. So, the contractor is barred out of the appliance

field—where a big and profitable opportunity awaits him—and the central station goes its way alone with no willing workers to help with the harvest.

Disregard the motive—for we don't know just what it was that "riled" the Patagonian—and ask yourself this question: Are not the methods surprisingly alike? For, in how many cases that you know of, has the central station called in the local contractors and supply dealers for a friendly conference on how best to advance the interests of all concerned, and what prices to maintain?

"We can't do anything like that in this town," says the central station man. "All our contractors are fighting for themselves. They won't work together." Well, who's going to begin? And how do you know what they will do, until you lay away that Patagonian club and do your business on the sane and profitable basis of the community of interest?

WHO GETS YOUR ADVERTISING?

How much money, we wonder, will be wasted by central stations this autumn in sending advertising matter to people who are dead or have moved away, and to people who are physically-hopeless prospects or who already own and use the devices that the lighting company is still talking to them about? How much money will be wasted on worthy printed matter that is purchased and then never sent to anyone?

One day last winter, while waiting in the office of the commercial manager of a large and widely known central station, we noticed on a dusty table a pile of well planned advertising matter. But it was designed to sell window lighting and the Christmas market was already passed.

"This is good stuff," we remarked. "But why are you buying it now?"

"Why, — it!" said the commercial manager, "I bought it last October and we've been so busy—etc., etc., etc.—that we never got it out. Our lists are not in shape, anyhow."

That pile of booklets probably represented an expenditure of seventy-five dollars; but what was the value of the opportunity abandoned?

A fall campaign to commercial prospects and customers is certainly as logical and promising a measure as any the year can offer. In the storekeeper's world, everything leads up to Christmas. He has bought his holiday stock in May and June, or earlier; he has dreamed his dreams and laid his plans through the summer and with the return of business activity in September he spurs himself to real preparation. Anything that offers a new attraction to trade is interesting to him; anything that seems to insure the maximum of harvest is a pressing need. Is there any service more vital to those last pre-Christmas days than that which the central station alone can provide?

The fall campaign for residence business may be made no less persuasive and profitable, for reasons that we all know.

The electric light man has ever been afflicted with a distorted mental attitude toward advertising in its relation to his other work. He has looked upon it more as an adjunct to his sales effort than as a vital factor in it. Overwork has always meant neglect of his lists and the postponement of his advertising plans. Instead of reducing the scale of his operations and maintaining their efficiency and force, he has either dropped his advertising work until he could "catch up" or let it struggle along and take care of itself—which it can not do.

If you hire a salesman and send him out to develop residence business, providing him with a list of interested prospects, those names represent his most profitable opportunities. And suppose, because you press him for results, he decides to disregard instructions and canvass house to house, figuring that a day's work on a single street will net more calls than following up leads. The situation is analogous.

Inquiries—good leads—enable the salesman to spend his effort in fertile fields; consistent and co-ordinate advertising fertilizes those fields and leads him to them, and the secret of its helpful power lies largely in the list. No good salesman will confine his work to one street because the name of that street rhymes with his own. Sending advertising matter to a list that is not accurate and reasonable is no less foolish.

Do you maintain your mailing lists so that you know that every dollar you spend on advertising is a well placed investment? Are you ready to take the fullest advantage of the present opportunity? If you are not sure—hire additional clerical aid for one week and make it possible for your advertising to work with the same sound sense that you look for in your banner salesman.

HOW WE GROW!

Seven years ago at the N.E.L.A. Convention in Denver, when for the first time a separate session was given over entirely to the consideration of commercial subjects, the meeting was devoted to papers and discussion on "Advertising Methods," "Sign and Decorative Lighting," and "Free Signs." That was about the scope of the central station commercial man's field at the moment. The work that our Commercial Section has undertaken for this present season, as announced on another page, embraces electrical refrigeration, steam heating, electricity on the farm, wiring of existing buildings, short cuts in executing orders, electrical merchandising, education of salesmen, and a publication schedule that will provide the best data and sales material obtainable from the genius and experience of the entire industry.

How we grow! How our opportunities grow! Are you keeping up?

NELITE

A cheese sandwich sometimes makes a mighty satisfactory lunch, but who wants to *live* exclusively on cheese? Almost *any* good reflector or globe is satisfactory for certain specific service, but *none* is satisfactory for *all* service.

The **NELITE** lines embrace *every* type and style of illuminating glassware—*every good* type of metal reflector. When we specify or recommend one or another of the **NELITE** products our advice is based upon the *true* requirements of the installation and is not affected by loyalty to *any* particular type or form of equipment.

We manufacture the *best* reflector of *every* kind for *every* service.

NELITE WORKS

A New Industrial Reflector---The Nelite Dome



THE NELITE DOME is a new type of lighting equipment. It has the high efficiency of the so-called "flat" reflectors, while minimizing glare effect and giving a most desirable distribution of light. Made in five sizes, for lamps of 40 to 250 watts. Porcelain enamel inside and out. Holders for any type of socket. Sturdy, well-made, carefully inspected. Ask for leaflet No. 720 containing full data and prices

NELITE WORKS

OF GENERAL
ELECTRIC COMPANY

CLEVELAND OHIO

New York

Boston

Philadelphia

Chicago

San Francisco

Annual Convention of Illuminating Engineers

The sixth annual convention of the Illuminating Engineering Society will be held this month at Hotel Clifton, Niagara Falls, Ont., from September 16th to 19th. The following papers have been announced as features of the program.

"Indirect and Semi-Indirect Illumination," by Mr. R. F. Pierce.

"Recent Developments in Series Street Lighting," by Dr. C. P. Steinmetz.

"Research Methods," by Dr. E. P. Hyde.

"The Problem of Heterochromatic Photometry and a Rational Standard of Light," by Dr. H. E. Ives.

"Reflection from Colored Surfaces," by Mr. Claude W. Jordan.

"Diffuse Reflection," by Dr. P. G. Nutting.

"A Study of Natural and Artificial Light Distribution in Interiors," by Mr. M. Luckiesh.

"The Physiology of Vision," by Dr. T. A. Woodruff.

"The Efficiency of the Eye Under Different Systems of Illumination," by Dr. C. E. Ferree. This paper will be a report of a research carried on for the American Medical Association.

"A Proposed Method of Determining the Diffusion of Translucent Media," by Mr. E. L. Elliott.

"Illumination Charts," by Mr. F. A. Beuford.

"The Determination of Illumination Efficiency," by Mr. E. L. Elliott.

"An Absolute Refectometer," by Dr. P. G. Nutting.

"Colored Values of Illuminated Surfaces," by Mr. Bassett Jones, Jr. This subject will be presented in the form of a series of experimental demonstrations.

N. B. Hickox.

Mr. Norman B. Hickox, Manager of the New Business Department of the Muskogee Gas & Electric Co., Muskogee, Oklahoma, has been made manager of the Greenwood Advertising Company, the well-known manufacturers of electric signs at Knoxville, Tennessee. Mr. Hickox has been at Muskogee during the past three years, during which time that city has gained an enviable reputation as one of the brightest and most thoroughly electrified cities of its size in the country. As to electric signs, Muskogee has more per capita than any other city in the country—practically all power is electrical, and in store and residence lighting it ranks high.

Before coming to Muskogee, Mr. Hickox was employed to look after new business matters for a syndicate headed by Mr. S. S. Bush of Louisville, Ky. He assumed his new duties on August 15th.

New England N. E. L. A. Convention.

The fourth annual convention of the New England section of the National Electric Light Association will be held in Mechanics Building, Boston, Mass., October 15, 16, and 17, 1912. This convention is to be held during the 1912 Boston Electric Show and in the same building, and it is planned to invite the entire membership of the National Electric Light Association to this convention. This will give those who could not attend the convention in Seattle last June an opportunity to attend a big convention this year and at the same time visit the Electric Show. There will be seven interesting papers presented and discussed, besides many other features of interest now being planned for the visiting delegates.

concentrated on

Residence Lighting

The New ELECTRICAL PROGRESS, just out, has gone a long way beyond our previous success in providing our Customers with the very best advertising material to give the householder. It condenses into sixteen generously illustrated pages, just enough pertinent subjects in just long enough articles to hold the attention and create that longing feeling. Here's what's in it:

Contents

How They Wire Already Built Houses

This article is illustrated with *photographs* of men at work in a furnished house. It explains the "snake and fish" process while playing up the value of an electric installation. The pictures are by far the best ever published.

Wrinkles in Home Lighting

Here's a bunch of tricks in small type and short paragraphs. There are some you don't know yourself. You'd like to have them all in your own house — give your salesmen a chance to put them up to the customers.

Your Meter and Its Bill

A little anti-grouch talk to beat the consumer to it. Electric Light bills are growing bigger now — this shows why. There's a diagram that's worth printing in your local papers.

The One Commodity That's Cheaper

You know it's cheaper but have you convinced the user? This article in the middle of the book is worth more than it will cost you to distribute it. There's a new diagram here, too.

The Value of Your Wasted Light

This is clever — "save your light and the flat irons will look after themselves." Follow it up in your own territory. Send a man out with some Mazdas, a lamp-testing meter and a sewing machine motor — he'll *sell* the motor.

Electric Light for Safety

The writer has caught just the right angle on this subject — it's not overdone. Electric light is the best protection against fire and burglar and "we can prove it." From start to finish *Electrical Progress* cries "Wire Your House."

ELECTRICAL PROGRESS is a handy size — about 6½ inches × 9½ inches. It is printed on India Tint paper and looks like a magazine — not a circular or a supplement. It can be sent out with a strong letter of your own or as an independent magazine with no Central Station influence behind it. Either way it will be *read*.

Buy a hundred of the Residence Lighting Issue for 5 cents a copy and send them to the physicians and dentists with a request to place them on their waiting room tables.

Or buy a thousand for 3½ cents a copy and get the newsdealers in the residence districts to distribute them with the Sunday papers.

You can't lose and you will be surprised at the results.

Anyway—Get a Sample and Read It Yourself. There Are Some Good Hunches

On Its Way

Store Lighting In and Out.
Signs and Window Display.
Just before the holiday
preparations

The Rae Company

Publishers

17 Madison Avenue
New York

Don't Plan

your Xmas Campaign till
you see the prospectus of
the Xmas Gift Number
issued in November

Taking the Salesroom to the Customer

A New Idea That Has Been Successful in Denver, Col.

The sales department of the Denver Gas and Electric Light company has hit upon a clever scheme for carrying the salesroom right to the home of the prospect, aboard an electric truck. Mr. Rufus R. Gentry, the assistant commercial manager, says:

"The electric truck is equipped with all kinds of electric appliances connected to the vehicle battery so that they can be used and demonstrated. There are also gas appliances on exhibition but, of course, not in service.

"We have arranged with each one of our district managers to take this truck and visit the best prospects on his territory, thereby taking our salesroom to the customer's home and relieving her of the trouble and time entailed in coming to the office to make a selection or purchase. Also we have been very successful with this truck from the standpoint of advertising and demonstrating to our prospects for electric trucks, being able to visit their places of business to show them and talk to them of the advantages of the electric power vehicle.

"The district that secured the largest number of orders in one day, with two men and the driver, sold eight gas ranges, two gas water heaters, fifteen electric irons, one electric toaster, and one order to connect a gas range. We think it a pretty good 'Dollar Idea.'"

Like all such gleams of genius, the wonder is that we, also, cannot say—"Everybody's doing it." It is hard to bring the customer to the salesroom when you want him, it's hard to demonstrate in the prospect's home, for all the convenient "properties" are not at hand, and it's not always easy to secure the opportunity. But there is a novelty and a personal compliment in the arrival of a big truck especially equipped as an exhibition of the benefits of central station service that will bring results. The old Greek who comes to your door with a basket of laces



This truck demonstrates electric appliances at work and shows gas devices. It goes to the consumer's door.

and shawls probably doesn't get in, but when a big limousine drives up to the door and a well-dressed Oriental asks if he may bring in "some rugs to show Madame," he generally does. It's the same thing.

Every central station must have electric vehicles of its own if the electric vehicle load is to be developed.

Commercial Section Gets Early Start

Mr. E. W. Lloyd, 1912 Chairman, Begins His Administration With Important Changes of Method and Policy

The Commercial Section of the National Electric Light Association began its third year's work with an Executive Committee meeting at Association Island, August 8th. Under the new chairman, Mr. E. W. Lloyd of Chicago, important plans were made and new policies adopted which promise valuable results.

Most important of these new policies was the appointment of three administrative committees: Finance, under the chairmanship of Mr. T. I. Jones of Brooklyn; Publications, under the chairmanship of Mr. Douglas Burnett of Baltimore; and Membership, of which Mr. W. H. Hodge of Chicago was tentatively selected as chairman if his other duties will permit him to serve. Of all of these committees, Mr. Philip S. Dodd, the Section's secretary last year, was appointed secretary.

Mr. E. L. Callahan, of Byllesby and Company, was selected general secretary of the Section, with an assistant who will be located in the New York office of the Association.

A number of the committees which rendered valuable reports last year were discontinued, it being the sense of the meeting that their work had been completed and required no immediate additions. Among these were the committee on Competitive Illuminants, the committee on Industrial Lighting, the committee on Electrical Advertising and Decorative Street Lighting, the committee on Selling Power to Large Users, and the committee on Electric Vehicles.

Of the committees continued are Electrical Refrigeration, Steam Heating and Electricity on the Farm. The committee having charge of the Commercial Digest is continued with the further important work of handling the Electrical Solicitors' Handbook, which publication has been turned over to the Commercial Section to carry on. The committee on Residence Business will continue as the committee on Wiring of Existing Buildings, whose work will include such matters as co-operation between contractors, jobbers, and central stations; the question of less expensive wiring methods for small houses; standard prices and standard material for wiring, etc. The old committee on Contract Order Routine will hereafter be known as the committee on Short Cuts in Executing Orders, and it was instructed to concentrate its work upon the problems of the smaller companies, the elimination and simplification of clerical and routine work, and prompt handling of orders.

Two new committees were organized; one will be known as the Electrical Merchandising Committee, which will take up matters of appliance sales policy and methods, retail store management, window displays, appliance advertising, and other questions having to do with the sale of electrical merchandise.

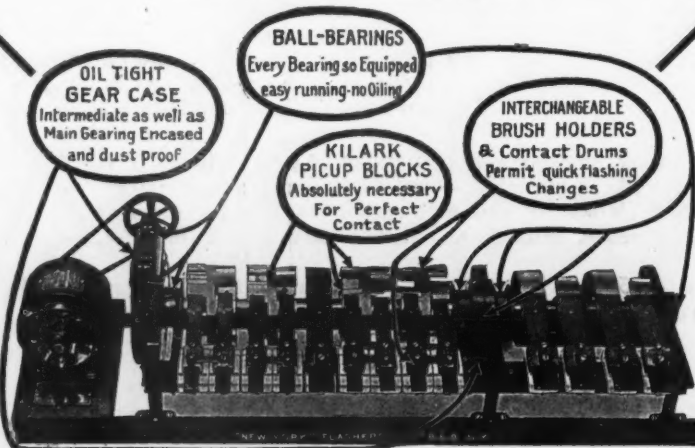
The other new committee will have charge of the Education of Salesmen, with wide discretion to follow out all matters that have to do with the schooling and handling of the soliciting force.

The meeting at Association Island was most enthusiastic. Chairman Lloyd injected a large amount of his own aggressiveness into the proceedings and insisted upon carrying all discussions to a logical conclusion and in reaching definite decisions. The members present were all impressed with the feeling that the industry is looking

No. 4

FLASHERS VS. CENTRAL STATIONS

DON'T RECOMMEND FLASHING ELECTRIC SIGNS
to your customers unless you can assure
them **PERFECT FLASHERS**



New York FLASHERS

SIMPLE - DURABLE - COMPACT. are used by the leading sign manufacturers because they can be relied upon. Because they are—
Cost no more than the ordinary kind.

COLOR CAPS

should be used on every sign.
A glaring white sign has no beauty.

BETTS & BETTS

Largest Manufacturers of Flashers and Electric Sign Specialties in the World.

254 W. 55TH STREET, NEW YORK, U. S. A.

On the Subway

Code Word, "Bettsania", W. V. Lieber's and Private Codes Used.



STYLE A



STYLE B

to the Commercial Section for a great deal of conservative and constructive work during the coming winter. Greater responsibility has been placed upon the Section by the Executive Committee of the parent Association; all the commercial committees were put upon their mettle. It is safe to predict that under these circumstances and with the leadership which the Section enjoys, there will be accomplished a great deal of work of definite and permanent value to every central station man.

A New Regulating Iron

The electric pressing iron shown in the accompanying cut is interesting in that it effects the regulation of heat by moving the lever shown in the top of the iron. In this way the exact amount of heat required is readily obtainable and there is no waste of electricity from overheating. The iron is made with a heavy bottom which gives a large storage capacity and prevents the iron losing its heat when heavy work is being pressed.

Another important feature is the adoption of a composition top which is a non-conductor of heat, and prevents the radiation and waste of heat in an upward direction. The iron has been used with most



satisfactory results by a large number of tailors, laundries, necktie makers, and other manufacturing shops, where continual service is required. It is claimed, in many cases, it effects a saving of from 30 to 50 per cent through the combination of the insulating top and regulating features.

The heating element lies against the base of the iron, giving an even distribution of heat over the ironing surface. There are no complicated or delicate parts to handle in obtaining an increase or decrease in the temperature of the iron, no connections to be broken or switches opened.

The iron is being placed on the market by the Dowdell Manufacturing Company, 66 Centre Street, New York.

Convention of the Georgia Section N. E. L. A.

The second annual convention of the Georgia Section, N. E. L. A., was held at Tybee Hotel, Tybee Island, Ga., on August 15, 16, and 17, President William Rawson Collier presiding. Seventy-five members and guests were in attendance. The papers presented covered a wide diversity of subjects and brought forth strong discussion.

The most important section business acted upon was a proposal to co-operate with company sections and other central station organizations of the southeastern states to form a Southeastern Section of the N. E. L. A. This will be done. Mr. E. C. Deal, general manager for the Augusta-Aiken Railway and Electric Corporation, was elected president of the Georgia Section for the coming year, with Mr. M. H. Hendee, commercial agent of the same company, as secretary-treasurer.

Increase Your Load with J-M ELECTROTHERM

It is fast replacing the hot-water bottle all over the electrified world. Every hospital can easily be induced to use several dozen J-M Electrotherms. Doctors' offices and homes with invalids are ready customers.

J-M Electrotherm consists of a thin, flexible sheet or pad containing resistance wires insulated and protected with asbestos. When attached to a lamp socket it produces a constant, uniform heat at any of the three different temperatures obtainable through use of its regulating switch.

Get your new-business man busy on this and you'll soon find the valleys in your load-curve filling up and your profits increasing. We'll help with printed matter.

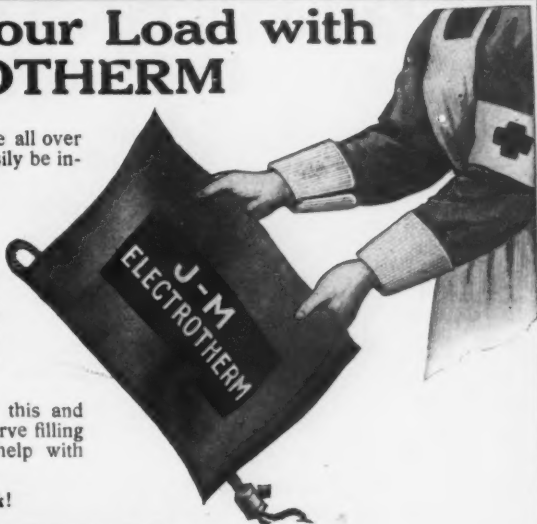
Write Nearest Branch for Details—Quick!

H. W. JOHNS-MANVILLE CO.

Manufacturers of Asbestos and Magnesia Products. Asbestos Roofings, Packings, Electrical Supplies, etc.

Albany	Chicago	Detroit	Louisville	New York	San Francisco
Baltimore	Cincinnati	Indianapolis	Milwaukee	Omaha	Seattle
Boston	Cleveland	Kansas City	Minneapolis	Philadelphia	St. Louis
Buffalo	Dallas	Los Angeles	New Orleans	Pittsburg	Syracuse

For Canada—THE CANADIAN H. W. JOHNS-MANVILLE CO., LIMITED, Toronto, Montreal, Winnipeg, Vancouver 1786



OUTDOOR ADVERTISING EVERYWHERE

The O.J. Gude Co., N.Y.

Originators of Spectacular Electric Sign Advertising, and of the "Great White Way," New York City

Owners of Electric Moving Sign U. S. Patent No. 648,677

A Matter of Fact! RECO FLASHERS



have been a success for 14 years past; contain more patented features than all other makes combined and are constantly being improved. Specified by the leading Central Stations and Sign Companies.

Get Bulletin number 21, showing a large list of Sign Suggestions.

Reynolds Electric Flasher Mfg. Co.

Largest Manufacturers of Flashers in the World

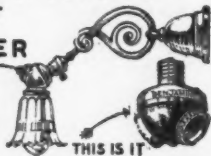
Also Manufacturers of Billboard Reflectors, Transformers, Time Switches, Window Displays, etc.

617-631 W. Jackson Blvd., Chicago

1123 Broadway, New York

BENJAMIN TWO-LIGHT PLUG CLUSTER

For Doubling the
Capacity of Your
Sockets Without
Extra Wiring



It just screws in—and the work is done. You have one light, but want two. Or you want to run an extra wire to another point for connecting some electrical appliance—fan, heater, curling-iron, flatiron, chafing dish, etc., and still keep your light burning. You need not rewire the place to do it.

*Benjamin Plug Cluster Does the Work
of Two Sockets.*

For sale by all Electrical
Dealers

**BENJAMIN ELECTRIC
MFG. COMPANY**

120-128 So. Sangamon St.
CHICAGO



PATENTS

promptly obtained **ON NO FEE.** Trade-Marks, Caveats, Copyrights and Labels registered. **TWENTY YEARS' PRACTICE.** Highest references. Send model, sketch or photo. for free report on patentability. All business confidential. **HAND-BOOK FREE.** Explains everything. Tells How to Obtain and Sell Patents, What Inventions Will Pay, How to Get a Partner, explains best mechanical movements, and contains 300 other subjects of importance to inventors. Address,

H. B. WILLSON & CO. Patent Attorneys
Box 292 Willson Bldg. WASHINGTON, D. C.

An Electric Service Table

A New Invention by a Central Station Man.

Mr. W. E. Clement, commercial agent for the New Orleans (La.) Railway and Light Company, has invented a new "short cut to electricity in the home," the "Service Table" shown below. The device is simply an ordinary table of the library type provided with four or more "outlets" or plug sockets placed on the side, below the surface or top, so as to be out of the way, and flush with the table. These outlets provide a ready and convenient means of connecting an electric fan or electric iron without interfering with the free use of a reading lamp or any other device upon the table.

The important point is that the little table represents a complete electrical installation, the meter, main switch, fuses, and wiring being concealed in an iron box placed out of sight beneath the table. The connection to the lighting mains is made inconspicuously through a small piece of steel conduit passing from the iron box through the baseboard, and up the outside wall to where the electric service wires connect to the street system. The conduit is well grounded. The practical utility and service value of such a table is obvious from this picture, which shows one of Mr. Clement's "Service Tables" in actual use. Its value to the industry will lie in its appeal to the home where the installation of service has been

blocked by the cost. At present no man wants to put an unworthy installation in a good house, simply because it is cheap. He will wait and sacrifice the benefits of electricity till he can have the work done on the scale his home demands. But the Service Table offers an opportunity that is neither distressingly inadequate nor an obvious makeshift. It makes no pretense of being a complete electrical equipment, but it pro-



The "Electric Service Table." It is a complete installation, meter, cut-out, and all.

vides for the living room all the electric comforts that can be desired. Moreover, through the use of extension cords, a vacuum cleaner can be employed all over the house, and other devices on occasion.

Mr. Clement has applied for a patent on his invention and is working now to develop his process of manufacture so that the cost may be sufficiently low to bring it within the reach of all those homes which have clung to other illuminants because of the cost of installing electricity in the usual way. The position of the table is fixed so that its conditions meet with the requirements of the inspectors.

200 Municipal Ownership Failures.

A pamphlet has just been published to present in concise, usable form the records of 200 cases where the municipal operation of electric and gas properties has resulted disastrously. The data has been compiled by Mr. Glenn Marston. The booklet gives 32 pages of facts and figures that should be most valuable in demonstrating where the real interests of the people are safest.

POSITIONS OR MEN WANTED

The rate for "Positions or Men Wanted" advertisements of forty words or less is one dollar an insertion; additional words, one cent each; payable in advance. Remittances and copy should reach this office not later than the 15th of each month for the next succeeding issue. Replies may be sent in care of Electrical Merchandise, 17 Madison Avenue, New York City.

AN ELECTRIC STORE needs an inside salesman who can make the windows and the store displays help him sell appliances. A big opportunity, and ready right now. Write No. 604, Electrical Merchandise, 17 Madison Avenue, New York City.

A SALES MANAGER with the kind of experience YOU want is available to any Central Station that is ready to expand and grow NOW. I have the facts, figures and references to prove my record. Address—EXPERIENCE, care of Electrical Merchandise, 17 Madison Avenue, New York City.

SIGN SALESMAN WANTED for New York city. Familiarity with central station methods desired but not necessary. An exceptional opportunity for two good men with an old-established company in a new territory. J. W. Rutherford, 136 Liberty St., New York.



Independent Foundry Company
Portland, Oregon

1912

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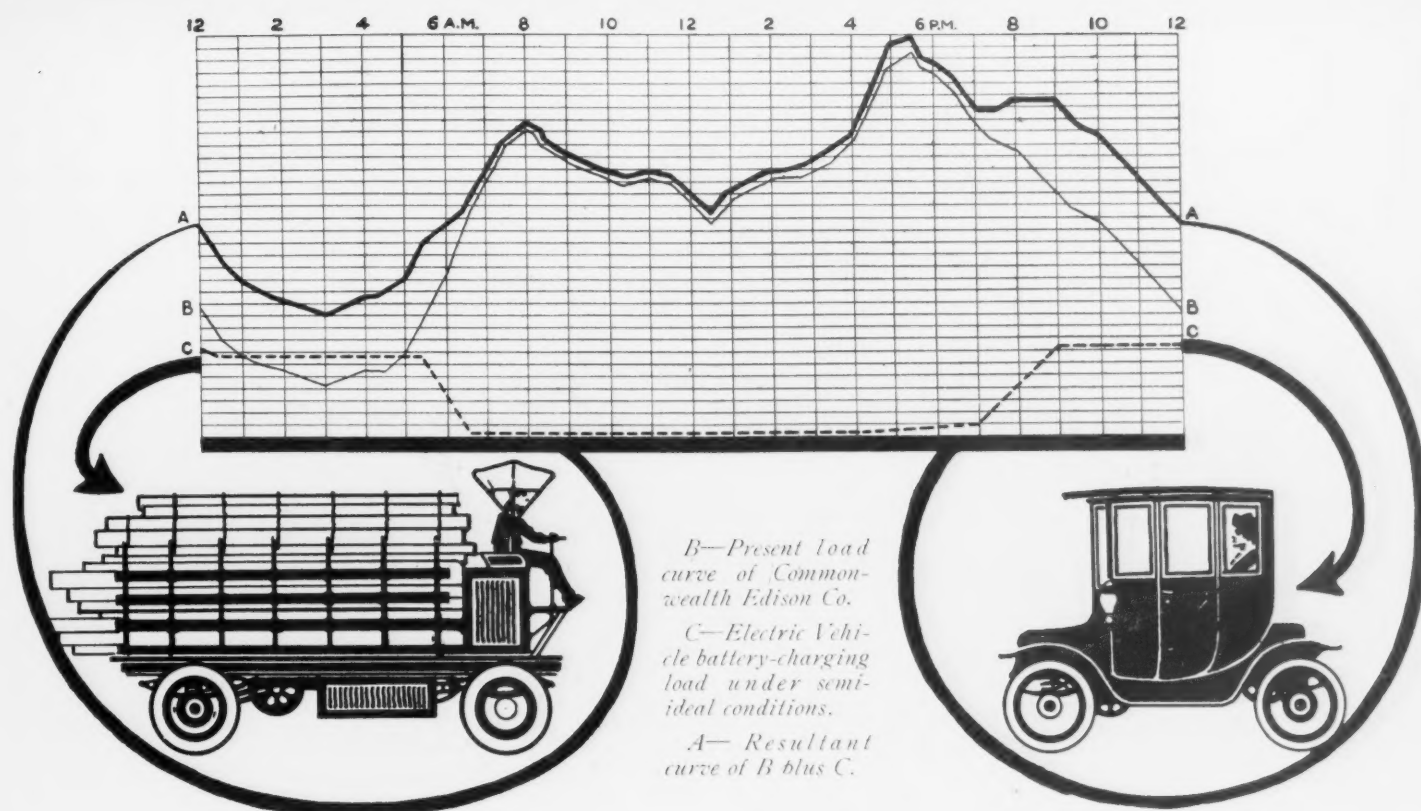
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Why Not Make Your Off-Peak Load Count on the Right Side of the Ledger?

Mr. Central Station Manager, are you content to let your valley load stay *where* it is and *what* it is—a very expensive feature of business operation? Why not make your daily off-peak load far more profitable?

Approximately \$90,000 is spent every week in charging Electric Trucks, to say nothing of the thousands of Electric Pleasure Cars. Are you doing what you can—what you *should*—to get *your* share of this business?

By promoting the sale of Electric Vehicles, you do more than fill up that non-productive "valley." The current consumption of Electric Vehicles during off-peak time will greatly increase the economical operation of your Central Station *the whole day 'round*.

Electric Vehicles Mean Bigger Business For Every Central Station

Every month 41 national magazines and trade journals are carrying the story of the Electric Vehicle—both pleasure and commercial—into the homes of over 13 million readers. Many of these people are right in your own territory—legitimate prospects for *you* to work on.



We want your enthusiastic, personal co-operation. We want you to share the benefits of this nation-wide advertising campaign—at very little expense. It will be for our common advantage for you to write us *now* for further information.

ELECTRIC VEHICLE ASSOCIATION OF AMERICA

BOSTON

NEW YORK: 124 W. 42nd St.

CHICAGO

(14)



Brilliant
SERVICE NEWS

GET YOUR NAME ON THIS MAILING LIST

This is a reproduction of the cover of the September issue of The "Brilliant" Service News. All those interested in lamps should send their names at once to get on the free mailing list.

First issue out September 1st. A little "surprise" publication giving useful "lamp pointers" and important Brilliant Service Facts. Send your name and address quick.

BRILLIANT ELECTRIC WORKS OF GENERAL ELECTRIC COMPANY **CLEVELAND, OHIO**